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BOARD OF LAND AND NATURAL RESOURCES

STATE OF HAWAI'I

IN THE MATTER OF

Contested Case Hearing Re Conservation
District Use Application (CDUA) HA-3568 for
the Thirty Meter Telescope at the Mauna Kea
Science Reserve, Ka'ohne Mauka, Hāmakua,
Hawai'i, TMK (3) 4-4-015:009

Case No. BLNR-CC-16-002

THE UNIVERSITY OF HAWAI'I AT
HILO AND TMT INTERNATIONAL
OBSERVATORY, LLC'S JOINT
RESPONSE TO THE FLORES-CASE
OHANA'S PROPOSED FINDINGS OF
FACT, CONCLUSIONS OF LAW, AND

2017 JUN 13 P:2:01
RECEIVED
DEPARTMENT OF
LAND AND NATURAL
RESOURCES
STATE OF HAWAII
AND COASTAL LANDS
OFFICE OF CONSERVATION

DECISION AND ORDER, FILED MAY
30, 2017 [DOC. 664]; APPENDICES A-B;
CERTIFICATE OF SERVICE

**THE UNIVERSITY OF HAWAI'I AT HILO AND TMT INTERNATIONAL
OBSERVATORY, LLC'S JOINT RESPONSE TO THE FLORES-CASE OHANA'S
PROPOSED FINDINGS OF FACT, CONCLUSIONS OF LAW, AND
DECISION AND ORDER, FILED MAY 30, 2017 [DOC. 664]**

Applicant UNIVERSITY OF HAWAI'I AT HILO ("UH Hilo) and TMT INTERNATIONAL OBSERVATORY, LLC ("TIO"), through their respective counsel, hereby jointly submit this Response to the Flores-Case Ohana's *Proposed Findings of Fact, Conclusions of Law, and Decision Order, filed May 30, 2017 [Doc. 664]* ("Response").

I. STANDARD OF REVIEW FOR REVERSAL OR MODIFICATION OF ADMINISTRATIVE FINDINGS, CONCLUSIONS, DECISIONS, OR ORDERS

To prevent judicial reversal or modification of administrative findings of fact under § 91-14(g), Hawaii Revised Statutes ("HRS"), the Board of Land and Natural Resources ("BLNR") should, upon review of the record, reverse or modify findings that are "[c]learly erroneous in view of the reliable, probative, and substantial evidence on the whole record." *In re Gray Line Hawaii Ltd.*, 93 Hawai'i 45, 53, 995 P.2d 776, 784 (2000). A finding of fact is clearly erroneous when: (1) the record lacks substantial evidence to support the finding or determination; or (2) despite substantial evidence to support the finding or determination, the BLNR is left with the definite and firm conviction that a mistake has been made. *Kienker v. Bauer*, 110 Hawai'i 97, 105, 129 P.3d 1125, 1133 (2006).

Similarly, conclusions of law should be reversed or modified where the BLNR finds they are in violation of constitutional or statutory provisions, in excess of the statutory authority or jurisdiction of the Commission, or affected by other error of law. *Id.*

II. DISCUSSION

A. Responses to the Flores-Case Ohana's ("Flores-Case") Proposed FOF and COL

The UH Hilo and TIO object to each of the FOF and COL in Flores-Case's *Proposed Findings of Fact, Conclusions of Law and Decision and Order, filed May 30, 2017 [Doc. 664]* ("Flores-Case's Proposed FOF/COL") to the extent that they are irrelevant, inapplicable, immaterial, mischaracterize the evidence, misstate or misrepresent the record, rely on evidence that is not credible, biased, or incomplete, and/or not supported by the evidence. UH Hilo and TIO also object to Flores-Case's Proposed FOF/COL to the extent they assert alleged "findings" that are beyond the scope of issues set forth in Minute Order No. 19.

Appendix A contains general objections to Flores-Case's Proposed FOF/COL, which UH Hilo and TIO hereby incorporate by reference to its response to each of Flores-Case's FOF and COL, to the extent applicable.

In addition to the general objections in Appendix A, UH Hilo and TIO have prepared a table of specific responses and objections to Flores-Case's Proposed FOF/COL, which is attached hereto as Appendix B. Citations to the evidence in the record provided herein are not intended to be exhaustive or comprehensive, but demonstrate evidentiary support for UH Hilo and TIO's responses and objections.

UH Hilo and TIO further object to Flores-Case's Proposed FOF/COL to the extent they seek to challenge the FEIS for the TMT Project. This proceeding is not an EIS challenge; Flores-Case's ability to make such a challenge expired long ago, and they cannot reopen the FEIS approval process through improper arguments of sufficiency under the statutes and rules governing the EIS process. This proceeding is entirely governed by the applicable constitutional law and the Conservation District rules that are genuinely at issue here.

The FOF/COL and page numbers referenced herein follow those as provided in Flores-Case's Proposed FOF/COL. References to the UH Hilo and TIO's Joint [Proposed] Findings of Fact, Conclusions of Law, and Decision and Order, filed on May 30, 2017 [Doc. 664] ("UH-TIO FOF/COL") are denoted by the prefixes "UH-TIO FOF" and "UH-TIO COL" for the numbered FOF and COL, respectively, in the jointly-submitted UH-TIO FOF/COL.

Acronyms and defined terms used herein are defined in the Index of Select Defined Terms, which was filed as part of the UH-TIO FOF/COL.

Any specific proposed finding or conclusion not specifically referred to or addressed below is deemed denied and disputed.

B. Responses to Flores-Case's Proposed Decision and Order

Flores-Case's proposed Decision and Order is not supported by the record. As set forth in the UH-TIO FOF/COL, substantial evidence has been adduced to show that the CDUA satisfies the eight criteria as set forth in Hawai'i Administrative Rule s("HAR") § 13-5-30(c)(1). The record also shows that the TMT Project is consistent with the UH Hilo's and the BLNR's obligations under the public trust doctrine, *Ka Pa 'akai*, and Article XI, section I and Article XII, section 7 of the Hawai'i Constitution.

Ultimately, Flores-Case is categorically opposed to the construction of TMT regardless of whether or not the TMT Project satisfies the eight criteria. No location on the mountain, and no combination of mitigation measures, will make the TMT Project acceptable to the Flores-Case 'Ohana. That position is not supported by the law.

III. CONCLUSION

For the reasons set forth in the UH Hilo Pre-Hearing Statement, TIO's Pre-Hearing Statement, the UH-TIO FOF/COL, the testimony of the UH Hilo's and TIO's witnesses, the examination of the Petitioners' and Opposing Intervenor's witnesses, and in the UH Hilo's and

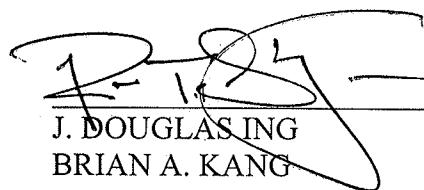
TIO's other filings, UH Hilo and TIO respectfully request that the Hearing Officer adopt the UH-TIO FOF/COL, and reject Flores-Case's Proposed FOF/COL.

DATED: Honolulu, Hawai'i, June 13, 2017.



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Appendix A

General Responses to Petitioners'/Opposing Intervenors' Proposed Findings of Fact ("FOF") and Conclusions of Law ("COL")	
Citation does not support the proposition.	The citation offered by Petitioners/Opposing Intervenors does not support the proposed FOF or COL.
Estoppel/Improper Reconsideration	The proposed FOF or COL or a portion thereof is improper to the extent it is barred by estoppel or waiver, or improperly seeks reconsideration of the Hearing Officer's or the BLNR's prior ruling,
Inaccurate/False	The proposed FOF or COL or a portion thereof is inaccurate or false.
Incomplete.	The proposed FOF or COL is materially incomplete.
Irrelevant/Inapplicable.	The information in the proposed FOF or COL is irrelevant or inapplicable in this contested case proceeding. <u>See</u> Minute Order No. 19 [Doc. No. 281].
Lack of Jurisdiction	The proposed FOF or COL exceeds the scope of the Hearing Officer's jurisdiction and/or delegated authority
Mischaracterization.	The proposed FOF or COL mischaracterizes legal authority or the contents of the record.
Misleading. Partial quotation.	The proposed FOF or COL contains a partial quote from legal authority or a document in the record, and the incompleteness of the quotation is likely to mislead the reader.
Misleading. Presented out of context.	The proposed FOF or COL presents law or information in the record out of context and/or in a way that is likely to mislead the reader.
Misrepresentation	The proposed FOF or COL affirmatively misrepresents legal authority or the contents of the record.
Not credible.	The proposed FOF or COL is not credible based on the totality of the evidence contained in the record and/or the demonstrated biases of the witness whose testimony is cited in support of the proposed FOF or COL.

Not in dispute.	Either (1) the proposed FOF or COL is not at issue in this proceeding, or (2) standing alone, the proposed FOF or COL is not objectionable. The designation of any individual proposed FOF or COL as “not in dispute” does not and should not be construed as an admission of said FOF or COL or a concession that said FOF or COL should be incorporated into the final FOFs and COLs. It also does not and should not be construed as assent to any inferences suggested or that may be suggested by Petitioners/Opposing Intervenors from, e.g., their misleading grouping or ordering of otherwise unrelated facts.
Not in evidence.	The proposed FOF or COL asserts “facts” and/or cites documents that are not in evidence.
Unsupported/Unsubstantiated	The proposed FOF or COL is not supported by information in the record or was not substantiated by the Petitioners/Opposing Intervenors through the contested case process.

Appendix B

Summary Table of Responses to Flores-Case's Proposed FOF/COL

FOF/ COL #	Page	FOF/COL	Response
1	3	The BOARD OF LAND AND NATURAL RESOURCES ("BLNR") is an executive board that heads the Department of Land and Natural Resources and is an agency of the State of Hawaii.	Not in dispute.
2	3	The DEPARTMENT OF LAND AND NATURAL RESOURCES ("DLNR") is a State Agency, an administrative department of the State of Hawaii, pursuant to Hawaii Revised Statute (HRS) Title 12 Chapter 171 "Public Lands, Management and Disposition of", HRS § 171-3 "Department of Land and Natural Resources", is responsible for the disposition of public lands, including the imposition of reservations, restrictions, and conditions of the disposition of public lands, by sale or lease. The Department is subject to Hawaii Administrative Rules of Practice and Procedure Title 13 "Land and Natural Resources" Chapter 1 § 13-1-1 et. seq.	HRS § 171-3 provides, <u>inter alia</u> , that DLNR "shall manage, administer, and exercise control over public lands . . . and exercise such powers of disposition thereof as may be authorized by law."
3	3	The OFFICE OF CONSERVATION AND COASTAL LANDS ("OCCL") is a department of DLNR.	The more accurate statement is that OCCL is "an office in DLNR."
4	3	The BLNR and DLNR are subject to all Hawaii State laws and statutes.	Not in dispute.
5	3	The STATE OF HAWAII ("the State") is a governmental entity and is the trustee of the public land at issue for the benefit of native Hawaiians and the general public, being lands granted to the State by section 5(b) of the Admissions Act and pursuant to Article XVI Section 7 of the State Constitution, as is set forth in the Article XII Section 4 of the Hawaii Constitution (Public Trust).	UH/TIO dispute that the Public Trust Doctrine applies to the TMT Project. Nevertheless, even if it does apply, the TMT Project complies with the Public Trust Doctrine. See UH-TIO FOF ¶¶ 1001-1014; UH-TIO COL ¶¶ 295-323.
6	3	Mr. Samuel Lemmo ("Lemmo"), was the Administrator of OCCL at the time the CDUP application for the proposed 30-meter telescope was submitted. Tr. 2/27/17, V.41 at 216-17.	Not in dispute.

FOF/ COL #	Page	FOF/COL	Response
7	3	Application CDUA HA-3568 was assigned to OCCL staff planner Mr. Michael Cain ("Cain") for preparation of an OCCL Staff Report. Tr. 2/27/17, V.41 at 218.	Not in dispute.
8	3	Public hearings on CDUA HA-3568 for the proposed Thirty Meter Telescope (TMT) in the Mauna Kea Conservation District, Mauna Kea Science Reserve, Ka'ohne Mauka, Hamakua, Hawa'i, TMK (3) 4-4-015:009 were held: on December 2, 2010 in Hilo and on December 3, 2010 in Kona. Ex. R-7/B.70 at 1,22.	Not in dispute.
9	4	Mr. Cain compiled the information and authored the OCCL staff report for CDUA HA-3568 (Exhibit R-7). Tr. 2/27/17, V.41 at 224.	Not in dispute.
10	4	Information included in the staff report was extracted from documents submitted by the Applicant. Tr. 2/27/17, V.41 at 225.	Incomplete. Mr. Lemmo testified that the information in the staff reports came from "lots of different sources[,"] which included not only documents submitted with the CDUA but also solicitation of comments from agencies and entities, including OHA. Information in the staff report also came from public hearings. See Tr. 2/27/17 at 225:16-226:21
11	4	Mr. Lemmo reviewed a number of the draft staff reports. Tr. 2/27/17, V.41 at 218 - 219.	Not in dispute.
12	4	Mr. Lemmo and Mr. Cain came to an agreement on the final draft of the staff report (Exhibit R-7). Tr. 2/27/17, V.41 at 218-19.	Not in dispute.
13	4	Mr. Cain formulated the conclusions for the OCCL Staff Report dated February 25, 2011 for CDUA HA-3568 (Exhibit R-7). Tr. 2/27/17, V.41 at 255.	Not in dispute.
14	4	One of the conclusions in the staff report was to approve CDUA HA-3568. Tr. 2/27/17, V.41 at 256.	Not in dispute.
15	4	Mr. Cain formulated the recommendations for the staff report dated February 25, 2011 for CDUA HA-3568 (Exhibit R-7). Tr. 2/27/17,	Not in dispute.

FOF/ COL #	Page	FOF/COL	Response
16	4	V.41 at 257.	
		Exhibit R-7, the February 25, 2011 staff report for CDUA HA-3568, was prepared for the members of the Board of Land and Natural Resources (BLNR) for the February 25th, 2011 meeting. Tr. 2/27/17, V.41 at 219 - 220.	Not in dispute.
17	4	Mr. Lemmo presented the staff report (Exhibit R-7) to the BLNR at the February 25, 2011 meeting. Tr. 2/27/17, V.41 at 255.	Not in dispute.
18	4	Mr. Lemmon testified that an OCCL staff report submitted to the BLNR should be as complete and accurate as possible so the BLNR members can make informed decisions. Tr. 2/27/17, V.41 at 261.	Not in dispute.
19	4	Mr. Lemmon testified that staff recommendations and conclusion to approve CDUA HA-3568 in the OCCL Staff Report were developed before the contested case hearing was held in 2011. Tr. 2/27/17, V.41 at 257 - 258.	Not in dispute.
20	4	A CDUA must comply with state laws. Tr. 2/28/17, V.42 at 19.	Not in dispute.
21	5	The BLNR approved CDUA HA-3568 and adopted the OCCL staff recommendations and made them conditions of CDUP HA-3568 along with other conditions. Tr. 2/27/17, V.41 at 257	Not in dispute.
22	5	On February 25, 2011, the BLNR held a public hearing in Honolulu and voted to approve the CDUA HA-3568 for the Thirty-Meter Telescope. Ex. R-7.	More accurately stated in UH-TIO FOF ¶32.
23	5	Subsequent to the Board's action to approve CDUA HA-3568, they also voted to approve a contested case hearing for this permit at this same meeting on February 25, 2011.	More accurately stated in UH-TIO FOF ¶32.
24	5	Mr. Lemmo testified that once an application goes into a contested case, OCCL's role becomes that of a custodian of the records and OCCL is no longer involved in substantive matters related to the contested case. Tr. 2/27/17, V.41 at 259.	Not in dispute.
25	5	"University of Hawaii c/o of University of Hawaii at Hilo" is identified as the "Legal Name" for the Applicant of CDUA HA-3568. Ex. R-1/B.30, CDUA, p. 1.	Not in dispute, but more accurately stated in UH-TIO FOF ¶1.

FOF/ COL #	Page	FOF/COL	Response
26	5	Dr. Donald Straney, Chancellor of UHH, as the agent (signatory) signed CDUA HA-3568 on behalf of the Applicant on September 2, 2010. Ex. R-1/B.30, CDUA, p. 1 - 2.	Dr. Donald Straney signed CDUA HA-3568 as the “authorized officer” of UHH. See R-1 at 1-2.
27	5	The Applicant UNIVERSITY OF HAWAII (“UH”) was established as the state university of the State of Hawaii (Article X, Section 5 of the Hawaii State Constitution and Hawaii Revised Statues (“HRS”) Section 304-2.	Not in dispute, but more accurately stated in UH-TIO FOF ¶11.
28	5	UHH is a subdivision of the University of Hawaii System. Ex. B.28 at 3-9	More accurately stated in UH-TIO FOF ¶11.
29	5	Petitioners that were given standing in the first cch pertaining to CDUP HA-3568 were the following: Mauna Kea Anaina Hou Clarence Kukauhahia Ching Paul K. Neves Deborah J. Ward Flores-Case Ohana	Not in dispute.
30	6	KAHEA: The Hawaiian Environmental Alliance	Not in dispute.
31	6	On December 2, 2015, the Hawaii Supreme Court issued its decision is <i>Mauna Kea Anaina Hou v. Board of Land and Natural Resources</i> , 136 Hawai'i 376, 363 P.3d 224 (2015). The Court vacated the circuit court's May 5, 2014 Decision and Order Affirming Board of Land and Natural Resources, State of Hawaii's Findings of Fact, Conclusions of Law and Decision and Order Granting Conservation District Use Permit for the Thirty Meter Telescope at the Mauna Kea Science Reserve Dated April 12, 2013, and final judgment thereon. The Court "remanded [the matter] to the circuit court to further remand to BLNR for proceedings consistent with this opinion, so that a contested case hearing can be conducted before the Board or a new hearing officer, or for other proceedings consistent with this opinion." MO No. 2 at 1.	Not in dispute.
		On February 22, 2016, the circuit court issued its remand order in	Not in dispute.

FOF/ COL #	Page	FOF/COL	Response
		which it also "remand[ed] this matter to the Board of Land and Natural Resources so that a contested case hearing can be conducted before the Board or a new hearing officer, or for other proceedings consistent with the Opinion." MO No. 2 at 1.	
32	6	OCCL was not involved in the process of deciding whether CDUA HA-3568 would come before the BLNR at a public meeting after the Hawai'i Supreme Court remanded the CDUA back to BLNR. Tr. 2/28/17, V.42 at 63.	Mischaracterization. See Tr. 2/28/17 at 62:13-63:18.
33	6	The Board of Land and Natural Resources met on February 26, 2016 and after "full discussion of the issue", the Board delegated the conduct of the contested case hearing to a hearing officer, pursuant to HAR § 13-1-32(b), and confirmed that the chairperson was authorized to engage the services of a hearing officer pursuant to law. MO No. 2 at 1.	Not in dispute.
34	6	BLNR issued Minute Order No. 1 that provided notice of selection of Riki May Amano as Hearing Officer ("HO") on subject contested case hearing. MO No. 1 at 1.	Not in dispute.
35	6	On March 31, 2016, in Minute Order No. 1 [Doc. 1], the BLNR Chair issued Notice of selection of Riki May Amano as Hearing Officer on subject contested case.	Not in dispute.
36	7	On April 8, 2016, in Minute Order No. 2 [Doc. 3], the BLNR issued Order delegating the conduct of the contested case hearing to a hearing officer, and confirming that the chairperson was authorized to engage the services of a hearing officer.	Not in dispute.
37	7	On April 29, 2016, in Minute Order No. 3 [Doc. 11], the BLNR Chair issued Order setting deadlines for responses to Hearing Officer's supplemental disclosures.	Not in dispute.
38	7	On May 6, 2016, in Minute Order No. 4 [Doc. 14], the BLNR issued Order regarding objections to the selection process, and regarding objections to the Hearing Officer.	Not in dispute.
39	7	On June 3, 2016, in Minute Order No. 9 [Doc. 63], the BLNR	Not in dispute.

FOF/ COL #	Page	FOF/COL	Response
		issued Order denying Petitioners' motion for reconsideration of Minute Order No. 4 filed on May 6, 2016 and/or Motion to strike selection process and to disqualify various members and Hearing Officer.	
40	7	On July 12, 2016 in Minute Order No. 12 [Doc. 82], the BLNR Chair issued Order denying Temple of Lono's motion for refund of filing fee, filed June 23, 2016.	Not in dispute.
41	7	On July 22, 2016 in Minute Order No. 14 [Doc. 124], the BLNR issued Order denying Dwight J. Vicente's motion to disqualify Judge Riki May Amano (ret.); State of Hawaii lack of jurisdiction to hear the contested case hearing.	Not in dispute.
42	7	On August 26, 2016 in Minute Order No. 17 [Doc. 245], the BLNR issued <u>unsigned</u> Order denying motion objecting to the Hearing Officer and the Hearing Officer Selection Process.	Not in dispute.
43	7	On October 14, 2016 in Minute Order No. 36 [Doc. 376], the BLNR issued Order voiding permit.	Not in dispute.
44	7	On May 12, 2017 in Minute Order No. 48 [Doc. 631], the BLNR issued Order denying the Temple of Lono's emergency motion to Board to stay proceedings, filed April 27, 2017 [Doc. 573] and related documents [Docs 582, 583, 584, 585, 600, 602, 624].	Not in dispute.
45	7	On May 17, 2017 in Minute Order No. 49 [637], the BLNR issued Order denying parties' petition to the Board for online access to the transcripts, filed May 5, 2017 [Doc. 622] and related document [Doc. 627].	Not in dispute.
46	7	On May 26, 2017 in Minute Order No. 52 [648], the BLNR issued Order Denying Protector/Parties' Petition for Declaratory Judgment and Motion to Vacate Minute Order No. 43, filed May 11, 2017 [Doc. 629], and Related Document [Doc. 636].	Not in dispute.
47	8	Applicant UNIVERSITY OF HAWAII AT HILO was represented by the private law firm of Carlsmith Ball, LLP.	Not in dispute
48	8	Petitioners MAUNA KEA ANAINA HOU and KEALOHA	Incomplete. More accurately stated in UH-TIO

FOF/ COL #	Page	FOF/COL	Response
		PISCOTTA, CLARENCE KAUAKAHI CHING, PAUL K. NEVES, DEBORAH J. WARD, FLORES-CASE 'OHANA, and KAHEA: THE HAWAIIAN ENVIRONMENTAL ALLIANCE (hereinafter "Mauna Kea Hui Petitioners") were represented by attorney Richard Naiwieha Wurdeman.	FOF ¶12-8.
49	8	Through Minute Order No. 13, the following were allowed to intervene in this contested case hearing: TMT International Observatory, LLC Perpetuating Unique Educational Opportunities, Inc. Mehana Kihoi C.M. Kaho`okahi Kanuha Harry Fergerstrom Joseph Kualii Lindsey Camara Jennifer Leina`ala Sleightholm Maelani Lee Cindy Freitas William K. Freitas Richard Maele DeLeon Temple of Lono by Lanny Sinkin Kalikolehua Kanaele Stephanie-Malia:Tabbada Tiffanie Kakalia Glen Kila Dwight J. Vicente Brannon Kamahana Kealoha	Not in dispute.
50	8	Through Minute Order No. 13, the following were designated as Hearing Officer witnesses: Crystal F. West Ivy McIntosh Wilma H. Holi Moses Kealamakia, Jr.	Not in dispute.

FOF/ COL #	Page	FOF/COL	Response
		Patricia Ikeda	
51	9	On May 9, 2016, in Minute Order No. 5 [Doc. 16], the Hearing Officer issued Order setting pre-hearing conference.	Not in dispute.
52	9	On May 23, 2016 in Minute Order No. 6 [Doc. 41], the Hearing Officer issued Order setting response date.	Not in dispute.
53	9	On May 26, 2016 in Minute Order No. 7 [Doc. 44], the Hearing Officer issued Order setting hearings on motions to intervene and 2nd pre-hearing conference.	Not in dispute.
54	9	On May 27, 2016, in Minute Order No. 8 [Doc. 49], the Hearing Officer issued Order setting hearings on motions to intervene and 2nd pre-hearing conference.	Not in dispute.
55	9	On June 6, 2016 in Minute Order No.10 [Doc. 65], the Hearing Officer issued Order regarding hearing /conference room rules and extended coverage.	Not in dispute.
56	9	On June 9, 2016 in Minute Order No.11[Doc. 66], the Hearing Officer Order issued regarding relocation of hearings on motions to intervene.	Not in dispute.
57	9	On July 21, 2016 in Minute Order No. 13 [Doc. 115], the Hearing Officer issued Order on the hearing on admission or intervention as a party.	Not in dispute.
58	9	On August 9, 2016 in Minute Order No. 15 [Doc. 185], the Hearing Officer issued Order regarding change of location for August 12, 2016 continued hearing and 3rd pre-hearing conference.	Not in dispute.
59	9	On August 22, 2016 in Minute Order No. 16 [Doc. 238], the Hearing Officer issued Order regarding third prehearing conference.	Not in dispute.
60	9	On August 22, 2016 in Minute Order No. 16 [Doc. 238], the Hearing Officer issued Order regarding third prehearing conference.	Not in dispute.
61	9	On September 23, 2016 in Minute Order No. 19 [Doc. 281], the Hearing Officer issued Order granting Perpetuating Unique	Not in dispute.

FOF/ COL #	Page	FOF/COL	Response
		Educational Opportunities, Inc.'s motion to set the issues Doc. 99; Order setting issues.	
62	9	On September 26, 2016 in Minute Order No. 20 [Doc. 289], the Hearing Officer issued Order setting fifth pre-hearing conference.	Not in dispute.
63	10	On October 10, 2016 in Minute Order No. 21 [Doc. 344], the Hearing Officer issued Order regarding fourth pre-hearing conference.	Not in dispute.
64	10	On October 10, 2016 in Minute Order No. 22 [Doc. 345], the Hearing Officer issued Order denying Harry Fergerstrom's (1) Motion to reconsider all motions, application, and/or request for admission or intervention as a party or other parties in this matter; and (2) Motion to strike all motions, applications, decision, etc.; Essentially making moot the entire hearing (Doc. 96).	Not in dispute.
65	10	On October 10, 2016 in Minute Order No. 23 [Doc. 346], the Hearing Officer issued Order denying Temple of Lono's motion for partial summary judgement (Doc 78).	Not in dispute.
66	10	On October 10, 2016 in Minute Order No. 24 [Doc. 347], the Hearing Officer issued Order denying Kalkolehua Kanaele's motion to exclude/remove PUEO, TMT, UH Manoa/Hilo, and all petitioners seeking for permit for TMT by circumvention of religious protections of the Hawaii Constitution Article XI and HRS 7-11-1107 committing desecration.	Not in dispute.
67	10	On October 10, 2016 in Minute Order No. 25 [Doc. 348], the Hearing Officer issued Order denying Stephanie-Malia-Tabbada's motion to vacate entire process for violation of BLNR and University of Hawaii fiduciary trust, rights, responsibilities, breach of contract, etc. mandated the by the law of the land (Doc 97).	Not in dispute.
68	10	On October 10, 2016 in Minute Order No. 26 [Doc. 349], the Hearing Officer issued Order denying Maelani Lee's motion to intervene (Doc 84).	Not in dispute.
69	10	On October 10, 2016 in Minute Order No. 27 [Doc. 350], the	Not in dispute.

FOF/ COL #	Page	FOF/COL	Response
		Hearing Officer issued, Order denying Petitioners' request for continuance on submissions and next hearing date (Doc 81) and Petitioners' supplemental request for continuance on submissions and next hearing date (Doc 82).	
70	10	On October 10, 2016 in Minute Order No. 28 [Doc. 351], the Hearing Officer issued Order denying Mehana Kihoi's motion to deny the intervention of Perpetuating Unique Educational Opportunities as a party in the contested case hearing (Doc. 98).	Not in dispute.
71	10	On October 10, 2016 in Minute Order No. 29 [Doc. 352], the Hearing Officer issued Order denying Temple of Lono's motion to dismiss for lack of jurisdiction based on unresolved land claims (Doc 126).	Not in dispute.
72	10-11	On October 10, 2016 in Minute Order No. 30 [Doc. 353], the Hearing Officer issued Order denying Kamahana Kealoha: Motion invoking Quo Warranto, respectfully, a demand of jurisdiction; Declaratory judgement on a constitutional issue / violation resubmitted 8/8/2016 (Doc 180).	Not in dispute.
73	11	On October 10, 2016 in Minute Order No. 31 [Doc. 354], the Hearing Officer issued Order denying motion for protective order for the Honorable David Y. Ige, Suzanne Case and Stanley Roehrig (Doc 182).	Not in dispute.
74	11	On October 10, 2016 in Minute Order No. 32 [Doc. 355], the Hearing Officer issued Order denying motion to strike motion for protective order for the Honorable David Y. Ige, Suzanne Case and Stanley Roehrig, filed on August 8, 2016 (Doc. 187).	Not in dispute.
75	11	On October 10, 2016 in Minute Order No. 33 [Doc. 356], the Hearing Officer issued Order denying Temple of Lono's motion to dismiss out of time (Doc. 179).	Not in dispute.
76	11	On October 11, 2016 in Minute Order No. 34 [Doc. 363], the Hearing Officer issued Order denying Kamahana Kealoha's motion demanding inventory of the so-called ceded lands containing the	Not in dispute.

FOF/ COL #	Page	FOF/COL	Response
		specific land and parcel the TIO plans to be sub-leased by UH who leases said lands from the BLNR, a survey of these lands also (Doc. 191).	Not in dispute.
77	11	On October 13, 2016 in Minute Order No. 35 [Doc.365], the Hearing Officer issued Order re: dismissal of Shelley Stephen's request to be part of Contested Case Hearing (Doc. 213).	Not in dispute.
78	11	On October 19, 2016 in Minute Order No. 37 [Doc. 388], the Hearing Officer issued Order denying motion to strike Conservation District Use Application, HA-3568, dated September 2, 2010, and/or motion for summary judgement (Doc. 94)	Not in dispute.
		On October 19, 2016 in Minute Order No. 38 [Doc. 389], the Hearing Officer issued Order denying motion to disqualify BLNR's and Hearing Officer's counsel (Doc 95).	Not in dispute.
80	11	On October 28, 2016 in Minute Order No. 39 [Doc. 406], the Hearing Officer issued Order denying renewed motions to disqualify Hearing Officer (Doc 340).	Not in dispute.
		On October 28, 2016 in Minute Order No. 40 [Doc. 407], the Hearing Officer issued Order denying J Leinaala Sleightholm's motion to clarify minute.	Not in dispute.
81	11	On January 20, 2017 in Minute Order No. 41 [Doc. 446], the Hearing Officer issued Order regarding date to set witnesses.	Not in dispute.
82	11	On February 17, 2017 in Minute Order No. 42 [Doc. 464], the Hearing Officer issued Order granting Flores-Case Ohana's request for subpoena for Samuel Lemmo - Administrator, Office of Conservation and Coastal Lands, DLNR, State of Hawaii (Doc. No. 452) and denying the University of Hawaii at Hilo's motion to quash Flores-Case Ohana's request for Samuel Lemmo - administrator, Office of Conservation and Coastal Lands, DLNR, State of Hawaii (Doc 444).	Not in dispute.
83	12		
84	12	On April 18, 2017 in Minute Order No. 43 [Doc.552], the Hearing	Not in dispute.

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85	12	Officer issued Order setting post-hearing deadlines. On April 20, 2017 in Minute Order No. 44 [Doc. 553], the Hearing Officer issued Order regarding documentary evidence.	Not in dispute.
86	12	On May 2, 2017 in Minute Order No. 45 [Doc. 590], the Hearing Officer issued Order granting in part / denying in part petitioners Mauna Kea Anaina Hou, et al.'s request for further status conference and/or consideration of proposed scheduling (Doc. 254).	Not in dispute.
87	12	On May 2, 2017 in Minute Order No. 46 [Doc. 595], the Hearing Officer issued Order related to Temple of Lono motion to recuse Hearing Officer (Doc. Nos. 262, 434, 436, 536, 544).	Not in dispute.
88	12	On May 4, 2017 in Minute Order No. 47 [Doc. 609], the Hearing Officer issued Order related to Temple of Lono motion for summary judgement (disqualification) (Doc. 263).	Not in dispute.
89	12	On May 23, 2017, in Minute Order No. 50 [646] the Hearing Officer issued Order denying reconsideration of Minute Order No. 43.	Not in dispute.
90	12	On May 25, 2017 in Minute Order No. 51 [650], the Hearing Officer issued Order Amending Minute Order No. 44 and Granting In Part/Denying In Part Reconsideration of Minute Order No. 44.	Not in dispute.
91	12	By motion dated April 15, 2016, Mauna Kea Hui Petitioners filed [Doc. 6] Petitioners' objections to selection process and to appointment of Hearing Officer made pursuant to Minute Order No. 1, dated March 31, 2016.	Not in dispute.
92	13	By motion dated May 6, 2016, Mauna Kea Hui Petitioners filed [Doc. 15] Petitioners' objections regarding procurement committee and process and committee member / BLNR Board member.	Not in dispute.
93	13	By motion dated May 13, 2016, Mauna Kea Hui Petitioners filed [Doc. 17] Petitioners' motion for reconsideration of Minute Order No. 4, filed on May 6, 2016 and/or motion to strike selection	Not in dispute.

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		process and to disqualify various members and hearing officer.	
94	13	By motion dated May 31, 2016, Mauna Kea Hui Petitioners filed [Doc. 52] Petitioners' submissions and positions on record; Exhibit "A."	Not in dispute.
95	13	By motion dated June 16, 2016, Mauna Kea Hui Petitioners filed [Doc. 69] Petitioners' memorandum in opposition to Perpetuating Unique Educational Opportunities, Inc.'s motion to intervene, dated May 16 2016.	Not in dispute.
96	13	By motion dated June 13, 2016, Mauna Kea Hui Petitioners filed [Doc. 70] Petitioners' memorandum in opposition to TMT's motion to have TMT International Observatory, LLC admitted as a party in the contested case hearing.	Not in dispute.
97	13	By motion dated July 11, 2016, Mauna Kea Hui Petitioners filed [Doc. 81] Petitioners Mauna Kea Anaina Hou et al.'s request for continuance on submissions and next hearing date.	Not in dispute.
98	13	By motion dated July 12, 2016, Mauna Kea Hui Petitioners filed [Doc. 83] Petitioners Mauna Kea Anaina Hou et al.'s supplement to request for continuance on submissions and next hearing date.	Not in dispute.
99	13	By motion dated July 14, 2016, Mauna Kea Hui Petitioners filed [Doc. 87] Petitioners Mauna Kea Anaina Hou et al.'s supplement to request for continuance on submissions and next hearing date.	Not in dispute.
100	13	By motion dated July 18, 2016, Mauna Kea Hui Petitioners filed [Doc. 94] Petitioners Mauna Kea Anaina Hou et al.'s motion to strike Conservation District Use Application, HA-3568, dated September 2, 2010, and/or motion for summary judgement.	Not in dispute.
101	13	By motion dated July 18, 2016, Mauna Kea Hui Petitioners filed [Doc. 95] Petitioners Mauna Kea Anaina Hou et al.'s motion to disqualify BLNR's and Hearing Officer's counsel.	Not in dispute.
102	14	By motion dated July 18, 2016 Mauna Kea Hui Petitioners filed [Doc.103] Petitioners Mauna Kea Anaina Hou et al.'s witness list.	Not in dispute.
103	14	By motion dated July 18, 2016, Mauna Kea Hui Petitioners filed	Not in dispute.

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104	14	<p>[Doc. 104] Petitioners Mauna Kea Anaina Hou et al.'s supplemental witness list.</p> <p>104 By motion dated July 26, 2016, Mauna Kea Hui Petitioners filed [Doc. 130] Petitioners Mauna Kea Anaina Hou et al.'s: (1) Renewal of objections to hearing officer selection process and hearing officer appointment, and (2) supplemental arguments on motion to disqualify BLNR's and Hearing Officer's counsel, filed on July 18, 2016.</p>	Not in dispute.
105	14	<p>By motion dated August 1, 2016, Mauna Kea Hui Petitioners filed [Doc. 163] Mauna Kea Anaina Hou, et. al. Petitioners' initial objections to witnesses designated by other parties</p> <p>105 By motion dated August 1, 2016, Mauna Kea Hui Petitioners filed [Doc. 165] (email) Note for the record.</p>	Not in dispute.
106	14	<p>By motion dated August 10, 2016, Mauna Kea Hui Petitioners filed [Doc. 188] Wurdeiman correspondence addressed to Hearing Officer Judge (Ret.) Riki May Amano and BLNR Chair Suzanne Case re: Hearing on Petitioners' motion to disqualify BLNR's and Hearing Officer's counsel, Filed on July 18, 2016, filed on August 10, 2016.</p>	Not in dispute.
107	14	<p>By motion dated August 17, 2016, Mauna Kea Hui Petitioners filed [Doc. 218] Petitioners Mauna Kea Anaina Hou, et al.'s site visit recommendations</p>	Not in dispute.
108	14	<p>By motion dated August 22, 2016, Mauna Kea Hui Petitioners filed [Doc. 233] Petitioners Mauna Kea Anaina Hou, et al.'s memorandum in opposition to motion for protective order for the Honorable David Y. Ige, Suzanne Case and Stanley Roehrig, filed on August 8, 2011.</p>	Not in dispute.
109	14	<p>By motion dated September 8, 2016, Mauna Kea Hui Petitioners filed [Doc. 254] Petitioners Mauna Kea Anaina Hou, et al.'s request for further status conference and/or consideration of proposed scheduling.</p>	Not in dispute.
110	14		

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111	14	By motion dated September 19, 2016, Mauna Kea Hui Petitioners filed [Doc. 270] Mauna Kea Anaina Hou, et al. Petitioners' response to P.U.E.O., Inc.'s proposed minute order granting P.U.E.O., Inc.'s motion to set issues.	Not in dispute.
112	15	By motion dated September 23, 2016, Mauna Kea Hui Petitioners filed [Doc. 282] Correspondence regarding notice of contested case hearing.	Not in dispute.
113	15	By motion dated September 26, 2016, Mauna Kea Hui Petitioners filed [Doc. 288] Petitioner Mauna Kea Anaina Hou, et al.'s objections to site visit and Minute Order No. 18.	Not in dispute.
114	15	By motion dated October 10, 2016, Mauna Kea Hui Petitioners filed [Doc. 340] Petitioners Mauna Kea Anaina Hou, et al.'s renewed motion to disqualify hearing officer.	Not in dispute.
115	15	By motion dated October 10, 2016, Mauna Kea Hui Petitioners filed [Doc. 341] Notice of withdrawal of counsel.	Not in dispute.
116	15	By motion dated October 10, 2016, Mauna Kea Hui Petitioners filed [Doc. 342] Petitioners Mauna Kea Anaina Hou and Kealoha Pisciotta, Clarence Kukauakahi Ching; Flores Case Ohana, Deborah J. Ward, Paul K. Neves, and Kahea: The Environmental Alliance list of email addresses for service of process.	Not in dispute.
117	15	By motion dated October 17, 2016, Mauna Kea Hui Petitioners filed [Doc. 383] Petitioners' Statement of Position in Response to the University's Statement Re Petitioners Renewed Motion to Disqualify Hearing Officer Document 369.	Not in dispute.
118	15	By motion dated October 10, 2016, Flores-Case 'Ohana filed [Doc. 377] Flores-Case 'Ohana's Motion for 30 Day Extension of Start of Contested Case Hearing.	Not in dispute.
119	15	By motion dated October 17, 2016, Flores-Case 'Ohana filed [Doc. 385] Flores-Case 'Ohana's Motion to admit first supplemental exhibits into evidence;	Not in dispute.
120	15	Memorandum in support of motion.	Not in dispute.

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121	15	By motion dated January 25, 2017, Flores-Case ‘Ohana filed [Doc. 447] Flores- Case Ohana’s request for witness subpoena for ‘John Doe’ and for a subpoena duces tecum to disclose unidentified Maunakea Observatories Support Services employee involved with the destruction of ahu (shrine) on Mauna Kea in August of 2015.	Not in dispute.
122	15	By motion dated January 25, 2017, Flores-Case ‘Ohana filed [Doc. 448] Flores- Case Ohana request for witness subpoena for Samuel Lemmo, Administrator, Office of Conservation and Coastal Lands, DLNR, State of Hawaii.	Not in dispute.
123	16	By motion dated January 27, 2017, Flores-Case ‘Ohana filed [Doc. 452] Flores- Case Ohana’s amended request for witness subpoena for Samuel Lemmo, Administrator, Office of Conservation and Coastal Lands, DLNR, State of Hawaii; Memorandum in support of amended request; Appendix “A.”	Not in dispute.
124	16	By motion dated February 16, 2017, Flores-Case ‘Ohana filed [Doc. 465] Flores- Case Ohana’s response to applicant University of Hawaii at Hilo’s motion for leave to present rebuttal testimony; memorandum in support of response; Exhibit “a.”	Not in dispute.
125	16	By motion dated February 28, 2017, Flores-Case ‘Ohana filed [Doc. 487] Flores-Case ‘Ohana’s Motion to Admit Evidence and WDT Into Evidence; Memorandum in Support of Motion.	Not in dispute.
126	16	By motion dated March 8, 2017, Flores-Case ‘Ohana filed [Doc. 500] Flores-Case Ohana’s motion to admit first supplemental exhibits into evidence; Memorandum in support of motion.	Not in dispute.
127	16	By motion dated March 16, 2017, Flores-Case ‘Ohana filed [Doc. 513] Flores-Case Ohana’s response to applicant University of Hawaii at Hilo’s motion to admit exhibits into evidence; Memorandum in support of response.	Not in dispute.
128	16	By motion dated March 22, , Flores-Case ‘Ohana filed [Doc. 532] Flores-Case Ohana’s joinder to Mauna Kea Anaina Hou’s motion requesting time to respond to exhibits objections and related	Not in dispute.

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		matters; Flores-Case Ohana's motion in opposition to University of Hawaii at Hilo's opposition to motions to admit exhibits and written direct testimonies (Doc 514) and to TMT International Observatory, LLC's memorandum in opposition to motions to admit exhibits and written direct testimonies (Doc 511); Memorandum in support.	
129	16	By motion dated April 25, 2017, Flores-Case 'Ohana filed [Doc. 558] Flores-Case 'Ohana's motion to reconsider Minute Order No. 43; Memorandum in support of motion.	Not in dispute.
130	16	By motion dated April 27, 2017, Flores-Case 'Ohana filed [Doc. 577] Flores-Case Ohana's motion to reconsider Minute Order No. 44 and notice of spoliation of evidence; Memorandum in support of motion; Exhibit "A."	Not in dispute.
131	16	By motion dated May 7, 2017, Flores-Case 'Ohana filed [Doc. 623] Flores-Case Ohana's response to applicant University of Hawaii at Hilo's Doc. Nos. 592 & 615; Memorandum in support of response.	Not in dispute.
132	17	By motion dated May 7, 2017, Flores-Case 'Ohana filed [Doc. 624] Flores-Case Ohana's joinder to Temple of Lono emergency motion to Board to stay proceedings (Doc. No. 573).	Not in dispute.
133	17	By motion dated May 15, 2017, Flores-Case 'Ohana filed [Doc. 634] Flores-Case Ohana's motion for clarification or, in the alternative, reconsideration re: Minute Orders No. 43 and 44, filed 4/25/17 & 4/27/17 [Doc. Nos. 558 & 577]; Memorandum in support of motion; Declaration of E. Kalani Flores; Exhibit "A."	Not in dispute.
134	17	By motion dated May 16, 2017, Flores-Case 'Ohana filed [Doc. 635] Flores-Case Ohana's joinder to parties' petition to the Board for online access to the transcripts [Doc. No. 622].	Not in dispute.
135	17	By motion dated May 16, 2017, Flores-Case 'Ohana filed [Doc. 636] Flores-Case Ohana's joinder to protector/parties' petition to Board for declaratory judgment and motion to vacate Minute Order 43 [Doc. No. 629].	Not in dispute.

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136	17	Through Minute Order No. 18 [Doc. 274], the Hearing Officer issued Order regarding the site visit to Mauna Kea on September 26, 2016.	Not in dispute.
137	17	Mr. Ishibashi testified that they didn't stop at the actual proposed TMT site during the site visit. As such, participants, including the Hearing Officer, were prevented from getting out to take a first-hand look at the site. Tr. 11/16/16, V.9 at 142 – 146.	The instructions from the site visit came from the Hearing Officer, not Mr. Ishibashi or anyone from OMKM. See Tr. 12/8/17 at 135:3-136:9.
138	17	Mr. Ishibashi also testified their vehicle with himself and Ms. Nagata driving, both personnel of the Applicant as OMKM staff, were in the lead vehicle during the site visitation. Tr. 11/16/16, V.9 at 142 – 146.	Misrepresentation. The provided cite does not state that personnel of the Applicant were in the lead vehicle during the site inspection.
139	17-18	Through Minute Order No. 19 [Doc. 281], the Hearing Officer granted Perpetuating Unique Educational Opportunities, Inc.'s motion to set the issues as such:	<p>Not in dispute.</p> <ul style="list-style-type: none"> • Is the proposed land use, including the plans incorporated in the application, consistent with Chapter 183C of the Hawai'i Revised Statutes, the eight criteria in HAR §13-30(c), and other applicable rules in HAR, Title 13, Chapter 5 Conservation District? • Is the proposed land use consistent with Article XII, Section 7 of the Hawai'i State Constitution and <i>Ka Pa`akai O Ka `Aina v. Land Use Comm'n. State of Hawai'i</i>, 94 Hawai'i 31, 7 P.3d. 1068 (2000)? • Is the proposed land use consistent with Article XI, Section 1 of the Hawai'i State Constitution and the public trust doctrine?
140	18	E. Kalani Flores was presented as a witness along with written direct testimony ("WDT") (Ex. B.02a) on behalf of the Flores-Case	Not in dispute.

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		'Ohana. Flores was called on January 30, 2017 to testify on the relevance of facts presented and also provided all parties an opportunity to cross-examine this witness and to submit any rebuttal evidence. Tr.1/30/17 vol 32.	
141	18	The Applicant or any other party did not provide any creditable witness or evidence to rebut any of the facts presented by witness E. Kalani Flores.	Inaccurate/False. Not credible. Per the UH-TIO FOF/COL, and as further demonstrated in this response, there is significant and material evidence rebutting Flores' claims and alleged facts in this CCH. See e.g., FOF ¶189 (disputing Flores' claim that the University is not in compliance with the CMP); ¶1560 (disputing Flores' claim that the CDUA is deficient); ¶751 (disputing Flores' claim that the FEIS for the TMT Project was flawed and his claim of lack of consultation); see also Tr. 1/30/17 at 201-240 (UH's and TIO's cross-examination of Flores).
142	18	Prof. Flores, member of the Flores-Case 'Ohana, resides in Pu'ukapu, Waimea, Kohala Waho, Mokupuni o Hawai'i and is a Kanaka Maoli (also identified as a Native Hawaiian, <i>he hoa 'āina o Moku o Keawe, he 'ōiwi o ka pae 'āina Hawaii'i</i> , an indigenous person of the archipelago of Hawai'i) and a descendant of native Hawaiians who inhabited the Hawaiian Islands prior to 1778 as established through his genealogical lineage of Hukiku and Keulua. Ex. B.02a at 1 (Flores WDT).	Not in dispute that Mr. Flores makes these claims and believes them as an individual.
143	18	Prof. Flores is a cultural practitioner with substantial interest in Mauna a Wākea (also referred to as Mauna Kea), who continues to exercise his traditional and customary Native Hawaiian cultural, spiritual, and religious practices and who continues to engage in cultural practices, protocols, and ceremony gatherings connected to and on Mauna a Wākea. These traditional and customary Native	Not in dispute that Mr. Flores holds these beliefs. This proposed finding of fact and citation is not evidence that customary and traditional practices occur within the area E location site of the TMT Observatory. Mr. Flores did not provide any evidence that he

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		Hawaiian practices, including pilgrimages to the top of Mauna a Wākea, pre-date 1892 as evidenced through <i>'ike kupuna</i> , oral traditions, indigenous knowledge, ancestral insight, cultural sites, and several reports. Ex. B.02a at 1 (Flores WDT).	conducts any customary and traditional practices within the specific area E location site of the TMT Observatory. There is no reliable probative and substantial evidence that his or his referenced practices are within the bundle of rights protected by article XII, section 7 of the Hawaii State Constitution.
144	18	Prof. Flores has a B.A. degree in Hawaiian Studies from the University of Hawai'i at Hilo (UHH) along with a D.O.E Teaching Certification and has been an educator for over 30 years with the Hawai'i State Department of Education and the University of Hawai'i systems. Ex. B.02a at 1 (Flores WDT).	Not in dispute as to his stated background.
145	18	Prof. Flores is presently employed as a tenured Hawai'i Life Styles - Professor at Hawai'i Community College – Pālamanui instructing Hawaiian Studies courses, including, but not limited to the subjects of Hawaiian language, cultural traditions, spirituality, ethnobotany, and history. Prof. Flores is fluent in the Hawaiian language. Ex. B.02a at 1 (Flores WDT).	Not in dispute as to his stated background.
146	19	Prof. Flores is also owner of a consulting firm, <i>Mana'o i'o</i> , specializing in the field of Hawaiian Studies who has consulted on several projects and authored several Hawaiian cultural and historical research reports for Federal and State agencies as well as for private firms. Ex. B.02a at 1 (Flores WDT).	Flores admitted during the CCH that he had no experience in the preparation of Environmental Impact Statements, Archaeological Inventory Surveys, or Conservation District Use Applications. See UH-TIO FOF ¶751; Tr. 1/30/17 at 212:19-213:7. He also does not have a degree in anthropology or archaeology. See Tr. 1/30/17 at 206:7-11.
147	19	Prof. Flores has served for over 30 years on commissions, committees, and boards including, but not limited to Hawai'i County Public Access, Open Space, & Natural Resources Preservation Commission (5 yrs); Kaua'i County Historic Preservation Review Commission (6 yrs); OHA - Native Hawaiian	See response to proposed finding of fact 146 above.

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		Historic Preservation Council (10 yrs); Bishop Museum Native Hawaiian Culture & Arts Program (7 yrs) that included the review of archaeological surveys, mitigation plans, technical reports, and other similar types of documents. As such, Prof. Flores has established his extensive experience and knowledge in the review and assessment of reports and documents. Ex. B.02a at 1 (Flores WDT); Ex. B.02b at 2 – 3 (Flores Vitae).	The Hearing Officer determined, after objections from Petitioners and Opposing Intervenors, that no parties or witnesses would be formally qualified as experts. See Tr. 10/20/16 at 52:24-63:21. Nevertheless, Mr. Flores' opinions are given appropriate weight as an individual with strongly held beliefs and convictions about certain cultural traditions and practices affecting Native Hawaiians.
148	19	Based upon the legal standards covered in Hawaii i Rules of Evidence – Rule 702, Prof. Flores would be qualified as an expert witness through his knowledge, skills, experience, training, ancestral connections, and education in the subject matter pertaining to Hawaiian cultural traditions. Ex. B.02a at 1 (Flores WDT).	Not in dispute that Ms. Case was called as a witness.
149	19	B. Puualani Case was presented as a witness along with WDT (Ex. B.21a) on behalf of the Flores-Case ‘Ohana. Ms. Case was called on January 11, 2017 to testify on the relevance of facts presented and also provided all parties an opportunity to cross-examine this witness and to submit any rebuttal evidence. Tr. 1/11/17 vol 25.	Not in dispute that Ms. Case made these statements and believes them to be true to her as an individual.
150	19	Ms. Case, member of the Flores-Case ‘Ohana, resides in Pu‘ukapu, Waimea, Kohala Waho, Mokupuni o Hawai‘i and is a Kanaka Maoli (also identified as a Native Hawaiian, <i>he hoa ‘āina o Moku o Keawe, he ‘ōiwi o ka pae ‘āina Hawai‘i</i> , an indigenous person of the archipelago of Hawai‘i) and a descendent of native Hawaiians who inhabited the Hawaiian Islands prior to 1778 as established through her family lineage connected to the clan of ‘Awini and her grandfather, Umihulumakaokalanikia ‘imaunao‘awini, seven generations ago who guarded the pass of ‘Awini at the time of	

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151	19	Ms. Case is a cultural practitioner, Kumu Hula, chanter, and parent with connections to Mauna a Wākea. Ex. B.21a at 1 (Case WDT).	Not in dispute as to her belief in these positions.
152	19	Ms. Case acknowledges the <i>pueo</i> , <i>manō</i> and <i>mo'o</i> as her ‘ <i>āumākua</i> . Ex. B.21a at 1 (Case WDT).	Not in dispute that Ms. Case made these statements and believes them to be true to her as an individual.
153	19	Ms. Case has a B.A. degree in Hawaiian Studies from the University of Hawai‘i at Hilo along with a D.O.E Teaching Certification and has been an educator for nearly 30 years in the Hawaii State public school system. Ex. B.21a at 1 (Case WDT).	Not in dispute.
154	20	Ms. Case is fluent in the Hawaiian language and is presently a Hawaiian cultural consultant, teacher, lecturer and community leader and resource. Ex. B.21a at 1 (Case WDT).	Citation does not support the proposition.
155	20	Based upon the legal standards covered in Hawai‘i Rules of Evidence – Rule 702, Ms. Case would also be qualified as an expert witness through her knowledge, skills, experience, training, and education in the subject matter pertaining to Hawaiian cultural traditions. Ex. B.21a at 1 (Case WDT).	The Hearing Officer determined, after objections from Petitioners and Opposing Intervenors, that no parties or witnesses would be formally qualified as experts. See Tr. 10/20/16 at 52:24-63:21. Nevertheless, Ms. Case’s opinions are given appropriate weight as an individual with strongly held beliefs and convictions about certain cultural traditions and practices affecting Native Hawaiians.
156	20	The Applicant or any other party did not provide any creditable witness or evidence to rebut any of the facts presented by witness B. Pualani Case.	Inaccurate/False. Not credible. Per the UH-TIO FOF/COL, and as further demonstrated in this response, there is significant and material evidence rebutting Case’s claims and alleged facts in this CCH. See e.g., UH-TIO FOF ¶764 (disputing Case’s claims of alleged impacts); Tr, 1/11/17 at 206-232 (UH’s and TIO’s cross-

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			examination of Case). Object also as overbroad and lacks specificity as to what facts she is referring to in order to respond
157	20	Kapulei Flores was presented as a witness along with WDT of behalf of the Flores-Case ‘Ohana. However, she was later withdrawn as a witness along with her WDT. Tr. 1/25/17 vol. 30.	Irrelevant and not material given withdrawal of Kapulei Flores as a witness.
158	20	Dr. Kü Kahakalau was presented as a witness along with written direct testimony (Ex. B.06a) on behalf of the Flores-Case ‘Ohana. Dr. Kahakalau was called on January 9, 2017 to testify on the relevance of facts presented and also provided all parties an opportunity to cross examine this witness and to submit any rebuttal evidence. Tr. 1/9/17 vol. 23.	Not in dispute that Dr. Kahakalau testified as a witness.
159	20	As native Hawaiian cultural practitioners, her family regularly engages in Hawaiian ceremonies and protocol and has raised their daughters in these traditions, which include daily family protocols, healing rituals, monthly ceremonies based on the moon cycle, multiple yearly makahiki and other ceremonies like house blessings, graduations etc. Ex. B.06a at 1.	Not in dispute as to her beliefs as an individual.
160	20	Dr. Kahakalau has a Bachelor’s in Secondary Education and a Professional Diploma in Hawaiian Language, and a Master’s Degree in European Languages and Literature. She is the first person in the world to earn a Ph.D. in Indigenous Education. Dr. Kahakalau has over 30 years of experience teaching Hawaiian language, history and cultural studies to learners of all ages and levels, in and outside of the classroom. She has developed and implemented multiple educational pilots and spent over two decades researching the impact of Hawaiian focused education on native learners. Ex. B.06a at 1.	Not in dispute as to her stated background.
161	20	Dr. Kahakalau is a native Hawaiian educator, researcher, scholar, composer and recognized expert in Hawaiian language and culture. She has served as an expert witness in various contexts, including	The Hearing Officer determined, after objections from Petitioners and Opposing Intervenors, that no parties or witnesses would

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		testifying in contested case hearings. Dr. Kahakalau has lectured all over the world on diverse aspects of Hawaiian language and culture revitalization through culturally-driven models of education. Tr. 01/09/17 vol. 23 at 71, Ex. B.06a at 1.	be formally qualified as experts. See Tr. 10/20/16 at 52:24-63:21
162	21	Dr. Kahakalau has extensive experience in teaching, particularly in Hawaiian-focused educational settings for native learners. She is the founder and former director of Kanu o ka ‘Āina New Century Public Charter School, Hālau Wānana Indigenous Center for Higher Learning, Mālamapōki’i Early Childhood Program, the Kanu o ka ‘Āina Learning ‘Ohana and Kauhale ‘Ōiwi o Pu’ukapu, all located in Waimea on Hawai‘i Island. She is dedicated to educating through EA, a pedagogy based on the concept of “Education with Aloha.” Ex. B.06a at 1 - 2.	Not in dispute as to her stated background.
163	21	Over the years, Dr. Kahakalau has received many awards including the Order of Princess Pauahi from the Kamehameha Schools. This is the highest and most distinguished award given to those whose extraordinary lifetime contributions have positively impacted the Hawaiian community and who exemplify the values and vision of the Princess Bernice Pauahi Bishop. Ex. B.06a at 2.	Not in dispute as to her stated background.
164	21	Dr. Kahakalau is also an active community leader, serving on multiple non-profit boards, representing Hāmākua for eight (8) years on the Hawai‘i Island Burial Council and currently serving as chair of the Hawai‘i County Board of Ethics. Ex. B.06a at 1.	Not in dispute as to her stated background.
165	21	The Applicant or any other party did not provide any creditable witness or evidence to rebut any of the facts presented by witness Dr. Kū Kahakalau.	Inaccurate/False. Not credible. Per the UH-TIO FOF/COL, and as further demonstrated in this response, there is significant and material evidence rebutting the testimony of Dr. Kahakalau. See e.g., UH-TIO FOF ¶327 (noting her personal biases); ¶836 (disputing her unsupported and speculative testimony regarding the use of highly toxic chemicals).

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			The significant majority of Dr. Kahakalau's testimony was also irrelevant to the material issues in this CCH. Object as overbroad and lacks specificity as to what facts she is referring to in order to respond.
166 21		Dr. Manulani Aluli Meyer was presented as a witness along with written direct testimony (Ex. B.05a) on behalf of the Flores-Case 'Ohana. Dr. Meyer was called on January 26, 2017 to testify on the relevance of facts presented and also provided all parties an opportunity to cross-examine this witness and to submit any rebuttal evidence.	Not in dispute as to her stated background.
167 21		Dr. Meyer is a Native Hawaiian scholar and practitioner of Hawaiian knowledge. She earned her PhD in Education from Harvard University in 1998 and has since published widely and has also worked with indigenous communities and scholars around the world. Ex. B.05b. at 1.	Not in dispute as to her stated background.
168 21		Dr. Meyer has extensive experience in <i>ho'oponopono</i> (Hawaiian healing practices and processes) and education. In addition to teaching in the field of education, Dr. Meyer has directed and led various indigenous education programs in both Hawai'i and Aotearoa, New Zealand. She has studied and made significant contributions to the field of Indigenous Epistemology, or the Philosophy of Knowledge. Ex. B.05a at 1.	Not in dispute as to her stated background.

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169	21	<p>The Applicant or any other party did not provide any creditable witness or evidence to rebut any of the facts presented by witness Dr. Manulani Aluli Meyer.</p>	<p>Inaccurate/False. Not credible. Per the UH-TIO FOF/COL, and as further demonstrated in this response, there is significant and material evidence rebutting the testimony of Dr. Meyer. See e.g., UH-TIO FOF ¶¶233, 950 (noting that her opinions as to the consultation process were speculative as she conceded that she did not even read the CDUA). The significant majority of Dr. Meyer's testimony was also irrelevant to the material issues in this CCH. Object as overbroad and lacks specificity as to what facts she is referring to in order to respond.</p>
170	22	<p>Ruth Aloua was presented as a witness along with written direct testimony (Ex. B.24a) on behalf of the Flores-Case ‘Ohana. Ms. Aloua was called on February 15, 2017 to testify on the relevance of facts presented and also provided all parties an opportunity to cross examine this witness and to submit any rebuttal evidence. Tr. 2/15/2017 vol. 26.</p>	<p>Not in dispute that she was a witness.</p>
171	22	<p>Ms. Aloua has a Bachelor of Arts in Anthropology from the University of Hawai‘i at Hilo and a Master of Arts in Archaeology from Simon Fraser University in British Columbia, Canada. She has experience as an archaeologist for private firms and the National Park Service. Ms. Aloua has knowledge and skills ranging from familiarity with archaeological and anthropological practices, policies, and management plans at the county, state, and federal levels. Ex. B.24a at 1.</p>	<p>Not credible. Ms. Aloua’s lack of credibility and experience was clearly demonstrated throughout the CCH. See e.g., UH-TIO FOF ¶602 (noting her lack of experience and demonstrating that she did not conduct a sufficient review of the relevant documents). She claimed that impacts to certain find spots were not considered in the EIS, when they clearly were. See id. Her testimony should be given no weight.</p>

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172	22	Ms. Aloua is a Kanaka Maoli (Native Hawaiian) and is a traditional and customary practitioner of Mauna Kea. Ex. B.24a at 1; Tr. 2/15/2017 vol. 26 at 91.	Ms. Aloua stated she performed certain cultural practices, but her personal beliefs are individual and specific to her and not applicable generally to all others. The statement is also a mischaracterization or misrepresentation as she testified that she has “cultural practices” on Mauna Kea. She did not testify that she is a “traditional and customary practitioner” of Mauna Kea. Tr. 2/15/17 at 91:14-24. There is no reliable probative and substantial evidence that her or her referenced practices are within the bundle of rights protected by article XII, section 7 of the Hawaii State Constitution.
173	22	The Applicant or any other party did not provide any creditable witness or evidence to rebut any of the facts presented by witness Ruth Aloua.	Inaccurate/False. Not credible. Ms. Aloua’s lack of experience and credibility on specific subjects was clearly demonstrated throughout the CCH. See e.g., FOF ¶602 (noting her lack of experience and demonstrating that she did not conduct a sufficient review of the relevant documents). She claimed that impacts to certain find spots were not considered in the EIS, when they clearly were. <u>See id.</u> Her testimony should be given little or no weight. Object also as overbroad and lacks specificity as to what facts she is referring to in order to respond.
174	22	Diana LaRose was presented as a witness along with written direct testimony (Ex. B.25a) on behalf of the Flores-Case ‘Ohana. Ms. LaRose was called on January 19, 2017 to testify on the relevance of facts presented and also provided all parties an opportunity to cross examine this witness and to submit any rebuttal evidence.	Not in dispute that she was a witness.

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175	22	Ms. LaRose, M.A., is of Canadian Cree Nation ancestry and has been a traditional native healing practitioner for over 25 years. She has been termed a “sensitive,” that is she can see, feel, and communicate with animals, the forces of nature, the Earth, and others. Ms. LaRose comes forward as an earth-keeper, who has been called to share her experiences concerning Mauna Kea Ex.B.25a at 1.	Not credible. Ms. LaRose’s testimony was based on her feelings and is entirely speculative. Her testimony is not scientifically or objectively verifiable as credible admissible evidence. See e.g., UH-TIO FOF ¶566.
176	22	Ms. LaRose has ability to see with inner vision, the other dimensions which exist there. She has had this gift all of her life and it has been proven accurate. For the past eight years, she have been doing this spiritual work with Native Hawaiian cultural practitioners in Hawaii’i and elsewhere. LaRose has gone to ceremonies on Mauna Kea for about eight years with Hawaiian cultural practitioners. Ex.B.25a at 2. Tr. 1/19/17 vol. 27 at 234.	<u>See response to proposed finding of fact 175 above.</u>
177	22	The Applicant or any other party did not provide any creditable witness or evidence to rebut any of the facts presented by witness Diana LaRose.	<u>See response to proposed finding of fact 175 above.</u>
178	23	The <i>inoia</i> (name) of Mauna a Wākea literally means, “Mountain of Wākea”. This name is also reverberated by the ancestral guardians connected to this sacred mountain. Wākea (Sky Father) is personified in the atmosphere and heavenly realm that envelops Papahānaumoku (Mother Earth). This mountain is also referred to as “Mauna a Kea”, “Mauna Kea”, or just “Wākea”. Ex. B.02a at 18, Flores WDT.	Not in dispute the certain individuals hold such spiritual and religious beliefs; however, it cannot be generalized as true for all Hawaiian people. The fact that certain individuals may hold and/or express such religious or spiritual beliefs regarding, <i>inter alia</i> , the sacredness of Mauna Kea, is again not in dispute, but the legal impact of such beliefs is clearly in dispute. There is no reliable probative and substantial evidence that the substance of the belief is factual.
179	23	Mauna Kea is the highest insular volcano in the world. It is home to numerous unique geologic features and a truly awe inspiring natural environment. Revered by Hawaiians for centuries, Mauna	<u>See response to proposed finding of fact 178 above regarding beliefs.</u>

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		Kea still evokes feelings of spirituality from its visitors through majestic views and a landscape that reflect the volcanic history of our planet. Ex. B.28 at 5-24, CMP.	
180	23	It is known that Mauna Kea has long been regarded by many native Hawaiians as the most sacred place on the island, and it has been, and continues to be used as a place to conduct traditional and customary practices. Cultural and religious practices associated with the mountain include prayer, burial, and other rituals, and construction of small shrines. Ex. B.42 at 2-24, CMP MKPAP.	<u>See response to proposed finding of fact 178 above regarding beliefs.</u> This proposed finding of fact and citation is not evidence that customary and traditional practices occur within the area E location site of the TMT Observatory.
181	23	"Mauna Kea is now widely regarded by some as not only a sacred place, but the most important of all of the sacred places on the island of Hawaii." Ex. B.40, CMP CRMP.	<u>See response to proposed finding of fact 178 above regarding beliefs.</u>
182	23	Mauna Kea is a sacred site to the Native Hawaiian community (Maly 1999; Maly and Maly 2005). Ex. B.28 at 2-2, CMP.	<u>See response to proposed finding of fact 178 above regarding beliefs.</u>
183	23	"It is clear that to many Hawaiians, Mauna Kea is more than a mountain; it is the embodiment of the Hawaiian people." Ex. B.28 at 1-1, CMP.	<u>See response to proposed finding of fact 178 above regarding beliefs.</u>
184	23	Revered by Hawaiians for centuries, Mauna Kea remains a place of significant worship for Hawaiians, as well as non-Hawaiians. Ex. B.28 at 5-24, CMP.	Misrepresentation. Page 5-24 of Ex. B.28 states: "Revered by Hawaiians for centuries, Mauna Kea still evokes feelings of spirituality from its visitors through majestic views and a landscape that reflect the volcanic history of our planet." <u>See response to proposed finding of fact 178 above regarding beliefs.</u>

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185	23	The physical prominence of Mauna Kea as well as its stationing nearest to the heavens holds a spiritual significance for the Hawaiian people, a significance that can be expressed in likening the mountain to a sacred alter. Ex. B.28 at 1-3, CMP.	<u>See response to proposed finding of fact 178 above regarding beliefs.</u>
186	23	For some Hawaiians, Mauna Kea is so revered that there is no desire to ascend it, no desire to trespass on what is considered sacred space. Simply viewing the tower, the mountain, from afar, both affirms its presence, and reaffirms the sense of connection with both place and personage. For this reason, many Hawaiians feel that activities on Mauna Kea that lead to visible alterations of the landscape not only have a significant effect on the mountain itself, but also have a damaging effect on everything and everyone that is physically, genealogically, spiritually and culturally tied to Mauna Kea. Ex. B.28 at 1-4, CMP.	<u>See response to proposed finding of fact 178 above regarding beliefs.</u>
187	24	Pu'ulani Kanaka'ole Kanahale has stated, "Mauna Kea was always <i>kupuna</i> [an elder, ancestor] to us. Mauna Kea and Mauna Loa, the tips, they were always <i>kūpuna</i> [elders, ancestors]. and there was no wanting to go on top. You know, just to know that they were there was just satisfying to us. And so it was kind of a hallowed place that you know is there, and you don't need to go there. You don't need to bother it. But it is there, and it exists. And it was always reassuring because it was the foundation for our island." Ex. B.37 at V-15, MP.	<u>See response to proposed finding of fact 178 above regarding beliefs.</u>
188	24	Ms. Kanahale describes the summit region of Mauna Kea as a "sacred landscape." Indeed for some people it was so sacred, that there was no desire to even walk upon it Mauna Kea - the Mountain of Wākea and first born of Hawaii'i, is <i>kupuna</i> (an elder or ancestor). Just seeing Mauna Kea from afar provided Hawaiians with a sense of well-being and security. Pua states that seeing Mauna Kea today with construction upon it is hurtful and shameful. Ex. B.38 App. I at 23, MP.	<u>See response to proposed finding of fact 178 above regarding beliefs.</u>

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189	24	<p>"It is Mauna Kea, the most sacred mountain in all of Polynesia... The entire mountain is a temple, a heiau and the mountain itself is kapu—sacred...the scientists didn't know this when they built their telescope on the mountain's summit. Nor did they ask permission to do so from the caretakers of that sacred place, and the mountain does have kahus. Yet we cannot be too hard on the scientist, for they were simply operating from a place of ignorance, a place of theory, and they are just passing through."</p> <p>(Ancestral wisdom uttered by Hawaiian Shaman, Elder and Teacher, Hale Kealohalani Makua, in the book titled; "The Bowl of Light", by Hank Wesselman, Ph.D., p. 192) Ex. B.21a at 1, Case WDT.</p>	<u>See response to proposed finding of fact 178 above regarding beliefs.</u>
190	24	<p>For native Hawaiians, both ancient and modern, the feelings for Mauna Kea go beyond wonder and astonishment, to the recognition of the mountain as a sacred domain. These profound feelings of reverence are expressed in the saying: "<i>O Mauna Kea ko kākou kuahiwi la'a</i>" (Mauna Kea, our sacred mountain). Ex. B.37 at I-1, MP.</p>	<u>See response to proposed finding of fact 178 above regarding beliefs.</u>
191	24	<p>The ancient saying "Mauna Kea kuahiwi ku ha'o i ka mālie" (Mauna Kea is the astonishing mountain that stands in the calm) (Pukui 1983: No. 2147), expresses the universal feeling experienced by all who come in contact with this special place. Ex. B.37 at I-1, MP.</p>	<u>See response to proposed finding of fact 178 above regarding beliefs.</u>
192	24	<p>According to '<i>ike kupuna</i>, indigenous knowledge and ancestral insight, the top of Mauna a Wākea is one of the three most sacred and significant places on Hawai'i Island. It is indeed a sacred piko. Ex. B.02a at 18, Flores WDT.</p>	<u>See response to proposed finding of fact 178 above regarding beliefs.</u>
193	25	<p>Mauna Kea is "<i>ka piko o ka moku</i>," which means "Mauna Kea is the navel of the island." Understanding the word <i>piko</i> may give a deeper understanding of why Mauna Kea is the <i>piko</i>, or navel, of the island. This perspective is further described in the Cultural</p>	<u>See response to proposed finding of fact 178 above regarding beliefs.</u>

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194	25	Anchor of the CMP. Ex. B.28 at i-ii, CMP.	<u>See response to proposed finding of fact 178 above regarding beliefs.</u>
195	25	"When we understand the three <i>piko</i> of the human anatomy, we may begin to understand how they manifest in Mauna Kea. Mauna Kea as the fontanel requires a pristine environment free of any spiritual obstructions." Ex. B.28 at ii, CMP.	<u>See response to proposed finding of fact 178 above regarding beliefs.</u>
196	25	Exhibit B.02x provides a sketch of triple <i>piko</i> perspective. Exhibit B.02x.	Citation does not support the proposition. <u>See response to proposed finding of fact 178 above regarding beliefs.</u>
197	25	The Kanahelies (1997) tell of Mauna Kea as the <i>piko</i> or origin point for the island of Hawaii, and specifically the northern half of the island. Mauna Kea is, therefore, a place of great <i>mana</i> . Kanahelie has also said that the three <i>pu'u</i> , Poli'ahu, Lilinoe, and Wai'au are named for three sister goddesses who are female forms of water. Poli'ahu is embodied in the snow, Lilinoe in mist, and Wai'au in the lake. These <i>pu'u</i> are where the goddesses manifest themselves. Of these three landforms two, Poli'ahu and Lilinoe, are located in the Science Reserve. Wai'au is located in the Natural Area Reserve (Figure V-6). Ex. B.37 at V-15, MP.	<u>See response to proposed finding of fact 178 above regarding beliefs.</u>
198	25	It is this <i>piko</i> on top of the summit where energies and life forces flow from the Creator and higher dimensions, through the realm of Wākea, and then into the Earth. Ex. B.02a at 21. Flores WDT.	<u>See response to proposed finding of fact 178 above regarding beliefs.</u>
199	25	Mauna a Wakea is a significant <i>piko</i> of this earth that is connected to other very significant pikas [sic] of other places. Tr. 1/11/17 vol.	<u>See response to proposed finding of fact 178 above regarding beliefs.</u>

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200	25	On 4 March 2011, a photograph was taken from Waimea by Kehaulani Marshall showing a portal opening above the <i>piko</i> of Mauna a Wākea when such an event was occurring. Ex. B.02w; Ex. B.02a at 21, Flores WDT.	<p>See response to proposed finding of fact 178 above regarding beliefs. Moreover, the existence of the photo is not disputed, but not scientifically verifiable as an actual spiritual or religious "portal" with any material or significant meaning or impact for this project</p> <p>Citation – i.e., page 5 of Case's direct testimony - does not support the proposition that Ms. Case has observed a portal opening. The alleged observations are her feelings or beliefs and are not scientifically or logically verifiable and not demonstrated by admissible evidence; or otherwise the weight given to such testimony and exhibits is of little significance due to its lack of reliable probative value and/or materiality in connection with the criteria or legal issues to be resolved in this case</p> <p>See response to proposed finding of fact 178 above regarding beliefs.</p>
201	25	Ms. Case has personally witnessed a portal opening overhead in the sky above the <i>piko</i> of Mauna Kea. [see photo in Ex. B.02w] Likewise, she has seen and experienced other divine occurrences connected with the mountain during their ceremonies. Ex. B.21a at 6, Case WDT.	
202	26	Mauna a Wākea anchors a very complex multi-dimensional over-fold, and does so through its very conscious geometric grid, complex frequencies, and unique electromagnetic field. The summit is also an area where vortexes of energy occur. Vortexes distribute energy outward in what is termed electrical vortexes, and inward in what is termed magnetic vortexes. Ex. B.02a at 21, Flores WDT.	<p>Though it is not disputed that Mr. Flores made this statement in Ex. B.02a, he did not support this finding of fact with credible evidence nor did he establish any expertise to state this opinion. The alleged observations are not scientifically or logically verifiable and not demonstrated by admissible evidence; or otherwise the weight given to such testimony</p>

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			<p>and exhibits is of little significance due to its lack of reliable probative value and/or materiality in connection with the criteria or legal issues to be resolved in this case.</p> <p><u>See response to proposed finding of fact 178 above regarding beliefs.</u></p>
203	26	Exhibit B.02x provides a diagram of vortex energies at Mauna a Wākea. Exhibit B.02x.	<p>Citation does not support the proposition. The alleged observations are not scientifically or logically verifiable and not demonstrated by admissible evidence; or otherwise the weight given to such testimony and exhibits is of little significance due to its lack of reliable probative value and/or materiality in connection with the criteria or legal issues to be resolved in this case.</p>
			<p><u>See response to proposed finding of fact 178 above regarding beliefs.</u></p>
204	26	Mauna a Wākea also resonates in harmonic oscillation with Mount Shasta in California, Mount Fuji in Japan, and other specific mountains around the world. Due to these energetic connections between these mountains, impacts upon Mauna a Wākea also impacts other mountains and vice versa. Ex. B.02a, at 21, Flores WDT.	<p>Though it is not disputed that Mr. Flores said this in Ex. B.02a, he did not support this finding of fact with credible evidence nor did he establish any expertise to state this opinion.</p> <p>The alleged observations are not scientifically or logically verifiable and not demonstrated by admissible evidence; or otherwise the weight given to such testimony and exhibits is of little significance due to its lack of reliable probative value and/or materiality in connection with the criteria or legal issues to be resolved in this</p>

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			<u>See response to proposed finding of fact 178 above regarding beliefs.</u>
205	26	There are countless mountains around the world considered sacred by cultures past and present. These holy mountains are also keystones to indigenous religions that regarded these areas as the abodes of certain gods, goddesses, deities, divine beings, natural forces, and spirits. In addition, pilgrimages to sacred mountains have been taking place for thousands of years. Whether it is Mauna a Wākea, Mount Shasta in California, Mount Fuji in Japan, Mount Teide in the Canary Islands, or Mount Sagarmāthā (Everest) in Nepal, their sacredness has resonated from centuries past. Ex. B.02a, Flores at 20, WDT	Irrelevant/Inapplicable. Not material. <u>See response to proposed finding of fact 178 above regarding beliefs.</u>
206	26	Exhibit B.02v provides a series of photos of mountains around the world such as Mauna a Wākea that are considered sacred by cultures past and present. Exhibit B.02v.	<u>See response to proposed finding of fact 205 above.</u>
207	26	The knowing of Mauna a Wākea as being kapu (sacred) was known from the remote times of the ancient ones. It is for this reason that amongst the countless ancestors of Kanaka Maoli and numerous <i>ali‘i</i> (chiefly) dynasties that lived in these islands, they never built any large <i>heiau</i> (temples) on the summit in this realm that is considered <i>kapu</i> . This is the reason that none of the Mauna Kea archaeological surveys have ever located a traditional man-made structure on the summit. Ex. B.02a at 18, Flores WDT.	<u>See response to proposed finding of fact 178 above regarding beliefs.</u>
208	26	Mauna Kea is a wahi kupuna of the highest sort. Tr. 01/19/2017, vol. 27 at 52.	<u>See response to proposed finding of fact 178 above regarding beliefs.</u>

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209	26	Dr. Osorio testified that there is a distinction in the level of sacredness between the Wao Akua, the realm of the gods, and the Wao Kanaka, the realm of the people. Tr. 05/11/2017, vol. 26 at 140.	Citation does not support the proposition. There is no transcript from 5/11/17. See response to proposed finding of fact 178 above regarding beliefs.
	210	Dr. Kahakalau articulated that “the entire mountain, as a first born, has a unique, special status for culturally-connected Hawaiians and exudes mana. Mauna Kea’s summit, based on what I was taught, as the highest peak not just in Hawaii but the entire Pacific, is also clearly a Wao Akua. A Wao Akua, versus a Wao Kanaka, is reserved for deities and spirits and should only be accessed for specific, always and only spiritual practices, involving special protocols.” Ex. B.06a at 3.	<u>See</u> response to proposed finding of fact 178 above regarding beliefs. The alleged observations are not scientifically or logically verifiable and not demonstrated by admissible evidence; or otherwise the weight given to such testimony and exhibits is of little significance due to its lack of reliable probative value and/or materiality in connection with the criteria or legal issues to be resolved in this case.
	211	Dr. Kahakalau explained that “The special mana of Mauna Kea can be felt by all whose ancestral gauges are calibrated correctly. In fact, this super natural power is acknowledged not just by Hawaiians, but by people from all over the world, who regard Mauna Kea, and other summits of high mountains, as places that bring us more closely into connection with the spiritual world, hence Wao Akua.” Ex. B.06a at 3.	<u>See</u> response to proposed finding of fact 178 above regarding beliefs.
	212	The <i>mo’olelo</i> and <i>mo’oku’auhau</i> of Mauna Kea also make it an extraordinarily sacred place. Tr. 01/19/2017, vol. 27 at 78-79.	<u>See</u> response to proposed finding of fact 178 above regarding beliefs.
	213	Based on a <i>mele hānau</i> , or birth chant for Kauikeaouli, Mauna Kea, Mauna a Kea, or Mauna a Wakea - all of these names can be used interchangeably – is such an entity, a sacred child of the highest birth. The chant states, “ <i>O hānau ka mauna a Kea, ‘ōpu ‘u a ‘e ka mauna a Kea ‘O Wakea ke kāne, ‘o Papa, ‘o Walinu ‘u ka wahine. Hānau Ho ‘ohōkū, he wahine. Hānau Hāloa, he ali‘i. Hānau ka</i>	<u>See</u> response to proposed finding of fact 178 above regarding beliefs.

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		<i>mauna. He keiki mauna na Kea.</i> " This primary source substantiates that Mauna Kea is a child of the gods, it's not just a <i>mauna</i> , or mountain, it is an <i>ali'i</i> , a chief, it is an <i>akua</i> , a god, it is sacred. Ex. B.06a at 2 - 3.	
214	27	In the times of the ancestors, individuals such as <i>kahuna kuhikuhī pu'uone</i> were consulted prior to constructing structures. Consultation and direct communication between intermediaries and those of the ancestral realm associated with such places was an essential and integral part of the process so as not to create a physical and/or spiritual disturbance, disconnection, or imbalance between man and his akua, and between man and his environment. Ex. B.02a at 18. Flores WDT.	<u>See response to proposed finding of fact 178 above</u> regarding beliefs.
215	27	The process of consultation with those recognized as the ancestral <i>akua</i> , <i>kupuna</i> , and <i>kūpuna</i> of Mauna a Wākea was not done by the Applicant and was also never done by any previous astronomy projects built on the mountain. Mo‘oinanea has affirmed that they did not get permission from the ancestral <i>akua</i> and <i>kupua</i> to build on their home. Ex. B.02a at 18, Flores WDT.	<u>See response to proposed finding of fact 178 above</u> regarding beliefs.
216	28	As a result of its prominence, isolation, and extreme environmental conditions Mauna Kea’s place in the culture and history of the Hawaiian people is significant. This “cultural significance” extends beyond a physical setting, sites or particular features which have been previously identified in archaeological site studies. Mauna Kea is a prominent feature on the cultural landscape of Hawai‘i which has been and continues to be viewed from afar, and to which spiritual and cultural significance is attributed. Ex. B.37 at 3, MP, App. I.	<u>See response to proposed finding of fact 178 above</u> regarding beliefs.
217	28	The origins of Maunakea and it central place in Hawaiian genealogy and cultural geography are told in <i>mele</i> (poems, chants) and <i>mo‘olelo</i> (stories and traditions). Native Hawaiian traditions	Ex. B.32 was not received into evidence. <u>See response to proposed finding of fact 178 above</u> regarding beliefs.

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		state that ancestral <i>akua</i> (gods and goddesses, deities) reside within the mountain summit area. Several natural features in the summit region are named for, or associated with, Hawaiian <i>akua</i> ; these associations indicate the importance of Maunakea as a sacred landscape. Each part of the mountain contributes to the integrity of the overall cultural, historical and spiritual setting. Ex. R-3/B.32 at 3-11. FEIS.	<u>See response to proposed finding of fact 178 above regarding beliefs.</u>
218	28	“Native Hawaiian traditions state that ancestral <i>akua</i> (gods, goddesses, deities) reside within the mountain summit area. These personages are embodied within the Mauna Kea landscape – they are believed to be physically manifested in the earthly forms as various <i>pu`u</i> and as the waters of Waiau. Because these <i>akua</i> are connected to the Mauna Kea landscape in Hawaiian genealogies, and because elders and <i>akua</i> are revered and looked to for spiritual guidance in Hawaiian cultural, Mauna Kea is considered a sacred place.” Ex. B.28 at 5-3, CMP.	<u>See response to proposed finding of fact 178 above regarding beliefs.</u>
219	28	“A number of place names recorded for this mountain landscape are associated with Hawaiian gods. Other place names are descriptive of natural features and resources, or document events that occurred on the mountain.” (Maly, 1999) “Native families also retain names such as Maunakea, Poli`ahu, Lilinoe, and Wai`au, which in some cases are directly tied to the mountain landscape.” (Maly, 1999) Ex. B.37 at V-13 & V-15, MP.	<u>See response to proposed finding of fact 178 above regarding beliefs.</u>
220	28	Members of the Flores-Case ‘Ohana have connected with some of those <i>akua</i> , <i>kupua</i> , and <i>kipuna</i> of Mauna a Wākea through genealogical ties as well as through customary and traditional practices. Through these practices, ‘ike <i>kupuna</i> , indigenous knowledge, and ancestral insight, information and understanding were provided about those connected to this sacred mountain. Ex. B.02a at 23, Flores WDT.	<u>See response to proposed finding of fact 178 above regarding beliefs.</u> There is no evidence that the alleged customary and traditional practices occur within the specific area E location proposed for the TMT Observatory. There is no reliable probative and substantial evidence that the referenced

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221	28	<p>Poliahu, “<i>ka wahine i ke kapa hau</i>” (the woman in the mantel of snow), is at times referred to as an <i>akua wahine</i>. She is a part of Mauna a Wākea and creates the rain, snow, hail, and sleet on this mountain. She serves as caretaker and guardian for the mountain and grants permission to certain spirits coming to the mountain. Poliahu has two attendants assisting her, Lilinoe and Lihau. She is a part of the landscape features with a highly evolved consciousness. Both oral and written native Hawaiian traditional accounts have documented Poli’ahu’s connection to Mauna a Wākea. Ex. B.02a at 23 – 24, Flores WDT.</p>	<p>practices are actually within the bundle of rights protected by article XII, section 7 of the Hawaii State Constitution.</p> <p><u>See</u> response to proposed finding of fact 178 above regarding beliefs. The alleged observations are not scientifically or logically verifiable and not demonstrated by admissible evidence; or otherwise the weight given to such testimony and exhibits is of little significance due to its lack of reliable probative value and/or materiality in connection with the criteria or legal issues to be resolved in this case.</p>
222	29	<p>Mo‘oinanea, <i>mo‘o wahine</i> and guardian of Lake Waiau, is at times referred to as a kupua. She is described in several traditional accounts and has genealogical ties to the Mauna a Wākea. Firstly, it is difficult to explain or define who Mo‘oinanea is for those who may lack an understanding. The existence of her as a <i>mo‘o wahine</i> goes beyond anyone’s personal belief, cultural attributes, or religious persuasion. We contend that just because other individuals are not able grasp this understanding, do not easily dismiss Mo‘oinanea’s existence on Mauna a Wākea. Mo‘oinanea is a revered and significant figure in both oral and written native Hawaiian traditional accounts that have documented her connection to Mauna a Wākea. She is able to communicate with individuals who have the cultural sensitivity and ‘gift’ to see, hear, and interact with her. Ex. B.02a at 24, Flores WDT.</p>	<p><u>See</u> response to proposed finding of fact 178 above regarding beliefs. The alleged observations are not scientifically or logically verifiable and not demonstrated by admissible evidence; or otherwise the weight given to such testimony and exhibits is of little significance due to its lack of reliable probative value and/or materiality in connection with the criteria or legal issues to be resolved in this case.</p>
223	29	<p>As a <i>mo‘o wahine</i>, coexisting with humanity on this physical realm while resonating at a higher vibration, Mo‘oinanea can transform into a full human form, full <i>mo‘o</i> (reptile/dragon) form, or part human (top half of her body) and <i>mo‘o</i> (bottom half) at times. This</p>	<p><u>See</u> response to proposed finding of fact 178 above regarding beliefs. The alleged observations are not scientifically or logically verifiable and not demonstrated by admissible</p>

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		<p>is due in part because her genealogy includes both <i>mo‘o</i> ancestry as well as human ancestry. Mo‘oinanea has shared with our family her genealogy going back several generations. She is the oldest of five siblings born to ‘Elua (father who is from Hilo) and Melemele (mother who is from South O‘ahu). In addition, she was born on the summit of Mauna a Wākea and assumed the responsibility as guardian of Lake Waiau from her mother who was the former guardian of this sacred body of water. Ex. B.21a at 3, Case WDT.</p>	<p>evidence; or otherwise the weight given to such testimony and exhibits is of little significance due to its lack of reliable probative value and/or materiality in connection with the criteria or legal issues to be resolved in this case.</p>
224	29	<p>Assisting Mo‘oinanea are her two female <i>mo‘o</i> attendants, Kīpu‘upu‘u and Kupukupu as well as others, including spirit attendants. Some serve as guards who watch the whole mountain while her attendants watch the lake when she is gone because there are certain other spirits such as those that might steal something or pranksters that they do not want on the mountain. Mo‘oinanea also serves as counselor to Poliahu and assists with some of her problems. Ex. B.21a at 3, Case WDT.</p>	<p><u>See response to proposed finding of fact 178 above regarding beliefs.</u> The alleged observations are not scientifically or logically verifiable and not demonstrated by admissible evidence; or otherwise the weight given to such testimony and exhibits is of little significance due to its lack of reliable probative value and/or materiality in connection with the criteria or legal issues to be resolved in this case</p>
225	29	<p>Exhibit B.23b provides a portrait of Mo‘oinanea done by Diana LaRose in 2011. Exhibit B.23b.</p>	<p><u>See responses to proposed findings of fact 178 and 221 above.</u></p>
226	29-30	<p>There are a number of guardian forces of nature connected to Mauna a Wākea. In a ceremony conducted by members of the Flores-Case ‘Ohana near the summit on 8 May 2011, a guardian force of nature from the depths of Mauna a Wākea came forth to provide the following insight. He is a guardian who came from the very depths of the mountain, way below the crust of the ocean floor, one who carries the ancient knowledge. He was filled with sadness because of the observatories on her (the mountain’s) shoulders and breasts were causing such desecration. He was aware of her feelings because they are all connected. Other guardians on the mountain have been awakened and are on alert regarding this proposed development. They are all in full</p>	<p><u>See responses to proposed findings of fact 178 and 221 above.</u></p>

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227	30	<p>communication with the Creator who can see all things through Wākea. He declared that those who are planning to cause further desecration on Mauna a Wākea are "ignorant and lost". In addition, he explicitly stated a message to them, "You are responsible for what you do not know and you will be held responsible." He also mentioned that everyone is accountable for one's own actions.</p> <p>Furthermore, he emphasized that, "You don't know what is coming when you do this, you have been warned." He is the one who has the power to shake the earth. Ex. B.02a at 23, Flores WDT.</p>	<u>See responses to proposed findings of fact 178 and 221 above.</u>
228	30	<p>(Guardian – rough English translation of name, "The one who sees far into the heavens"), an ancestral guardian connected to a <i>pōhaku</i> and previously unidentified site within the vicinity of the proposed TMT site. This guardian explained the significance of many of the sites on the northern plateau as they are interconnected like a large star map. Individuals from certain family lines were guided to come up to the mountain during certain times of the year to reestablish, construct, align, activate, and/or maintain these sites. The TMT construction activities of excavating, grading, and rock-crushing in the area have already caused a great disturbance amongst these sites and guardians. This ancestral guardian also reiterated some of the significant impacts that would result from the building of this telescope and the consequences of attempting to pursue this project on this sacred landscape. Ex. B.02a at 23, Flores WDT.</p>	<u>See responses to proposed findings of fact 178 and 221 above.</u> There is no evidence that the alleged customary and traditional practices occur within the specific area E location proposed for the TMT Observatory. There is no reliable probative and substantial evidence that the referenced practices are actually within the bundle of rights protected by article XII,

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		that we had encountered had fled up towards the top of their sacred mountain at the time after western contact (circa mid-1800's) when foreign diseases and epidemics swept through the villages along the Kona coast. Many of them were being persecuted by foreigners, particularly missionaries, during this time when many were dying by the hundreds. So for those who could, they fled up to the mountain to die in the realm closer to Wākea. One <i>kūpuna</i> recounted this account as she was the last one alive amongst her family and others in her group. She sang to them as they each had passed away until she was the very last one to pass. There were literally hundreds of them who had passed during these times and their remains are scattered around the mountain depending upon where they ended up. Ex. B.02a at 24 – 25, Flores WDT.	section 7 of the Hawaii State Constitution.
229	30	The <i>ahupua'a</i> of Ka'ōhe spans the summit of Mauna Kea and includes the Mauna Kea Science Reserve The lower slopes of Mauna Kea reach into the <i>ahupua'a</i> of Humu'ula and Ka'ōhe. Ex. B.37 at V-2, MP.	Irrelevant. Not material. The TMT Project, and the Astronomy Precinct which it is proposed to be built in, are located in the State of Hawaii Conservation District.
		The summit of Mauna Kea, which now comprises the conservation district were Hawaiian Kingdom Government lands, creates as public property of the government by the Mahele.	Irrelevant/Inapplicable.
230	31	There are many place names on the landscape of Mauna Kea that remind us of the broad relationship of natural landscape to the culture and practices of the Hawaiian people. Ex. B.38 App. I at D-25, MP.	Not in dispute that certain individuals believe this to be true and that said statement is found in the exhibit. See response to proposed finding of fact 178 above regarding beliefs.
231	31	The occurrence of place names extending from the shore line to the summit of Mauna Kea, is important in that it demonstrates the Hawaiian familiarity with the sites and features, and varied elevations of the mountain. Ex. B.38 App. I at D-25, MP.	Not in dispute that certain individuals believe this to be true and that said statement is found in the exhibit. See response to proposed finding of fact 178 above regarding beliefs.
232	31	Through a study of historic literature it is seen that the landscape of Mauna Kea has played an important role in the growth and evolution of the Hawaiian traditional narrative narratives and the cultural	Not in dispute that certain individuals believe this to be true and that said statement is found in the exhibit. See response to proposed finding

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		significance of Mauna Kea to the Hawaiian people. Ex. B.38 App. I at D-26, MP.	of fact 178 above regarding beliefs.
233	31	Early traditional and historic accounts, as well as a number of historic survey maps from ca. 1862-1892 identify several sites and features that bear the names of Hawaiian gods and goddesses that are intimately associated with the history of the mountain (such maps include Register Maps No.s 668, 1210, 1641, 1718, and 1860). Ex. B.38 App. I at D-26, MP.	Not in dispute that certain individuals believe this to be true and that said statement is found in the exhibit. <u>See response to proposed finding of fact 178 above regarding beliefs.</u>
234	31	In the summit region of Mauna Kea (from approximately 11,000 feet and above) and on the lower mountain slopes are found several features associated with Hawaiian gods and deity. Ex. B.38 App. I at D-26, MP	Not in dispute that certain individuals believe this to be true and that said statement is found in the exhibit. <u>See response to proposed finding of fact 178 above regarding beliefs.</u>
235	31	“Perhaps as a result of its prominence, isolation, and extreme environmental conditions, Mauna Kea’s place in the culture and history of the Hawaiian people is significant. This ‘cultural significance’ extends beyond a physical siting, sites or particular features which have been previously identified in archaeological site studies. Mauna Kea is a prominent feature on the cultural landscape of Hawai‘i which has been and continues to be, viewed from afar, and to which spiritual and cultural significance is attributed.” Maly, 1999, p. 3, Ex. B.37 at V-13, MP.	Not in dispute that certain individuals believe this to be true and that said statement is found in the exhibit. <u>See response to proposed finding of fact 178 above regarding beliefs.</u>
236	31	In the <i>Mauna Kea Oral History Study and Archival Literature Research</i> done by Kepā Maly as part of the <i>2000 Master Plan</i> , it states that “[d]ocumentation found in native traditions, historic accounts, and oral history interviews (cited in this study), and the presence of cultural features on the ground all speak to the uniqueness of, and significance of Mauna Kea.” Ex. B.38 App. I at 3, MP.	Not in dispute that certain individuals believe this to be true and that said statement is found in the exhibit. <u>See response to proposed finding of fact 178 above regarding beliefs.</u>
237	32	The summit of Mauna Kea has been referred to as <i>wao akua</i> (region of the gods). The most common understanding of <i>wao akua</i> is that it was a remote desolate location where spirits,	Not in dispute that certain individuals believe this to be true and that said statement is found in the exhibit. <u>See response to proposed finding of fact 178 above regarding beliefs.</u>

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		benevolent or malevolent, lived and people did not live. Usually these places were deep interior regions, inhospitable places such as high mountains, deserts and deep jungles. These areas were not necessarily <i>kapu</i> but were places generally avoided out of fear or respect. Different people and family had different protocols when they traveled through these remote regions. (George Atta personal communication with Holly McEldowney and Pat McCoy, June 2, 1999) Ex. B.37 at V-13, MP.	of fact 178 above regarding beliefs.
238	32	Dr. Meyer affirmed that Mauna Kea was identified by Hawaiian ancestors as a place of great healing. She explained that it was in the <i>wao akua</i> and was a place of inspiration, or renewal and rejuvenation. Tr. 04/01/17 vol. 31 at 84.	Citation does not support the proposition. There is no transcript from 4/1/17. <u>See</u> response to proposed finding of fact 178 above regarding beliefs.
239	32	The ancient saying “ <i>Mauna Kea kauhiwi ku ha ‘o i ka mālie’</i> ” (Mauna Kea is the astonishing mountain that stands in the calm) (Pukui 1983: No. 2147), expresses the feeling that Mauna Kea is a source of awe and inspiration for the Hawaiian people. The mountain is a respected elder, a spiritual connection to one’s gods. Thus, the landscape can be interpreted as a significant facet of a Hawaiian’s identify. Mauna Kea is the focal point of numerous traditional and historical Hawaiian practices and narratives recorded by both native Hawaiians and foreign visitors. Views of the mountain landscape are presented in Figure V-5. Ex. B.37 at V-13, MP.	Not in dispute that certain individuals believe this to be true and that said statement is found in the exhibit. <u>See</u> response to proposed finding of fact 178 above regarding beliefs. There is no evidence that any of the referenced practices occur within the specific area E location proposed for the TMT Observatory.
240	32	According to Dr. Meyer, “the minute you...have a relationship with something and you love it, it loves you back.” This was said in reference to the relationship that people have with Mauna Kea. Tr. 04/01/17 vol. 31. at 85.	Citation does not support the proposition. There is no transcript from 4/1/17. <u>See</u> response to proposed finding of fact 178 above regarding beliefs.
241	32	Spirituality, as Dr. Meyer explained, is often dismissed. Indigenous epistemologies, or ways of knowing, similarly, are often dismissed as “soft science” by the so called “hard sciences.” But this leads to dysfunction. Spirituality is real and cannot be confused with	Citation does not support the proposition. There is no transcript from 4/1/17. <u>See</u> response to proposed finding of fact 178 above regarding beliefs.

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242	32	religion. Tr. 04/01/17 vol. 31 at 117-119. In response to questioning, Dr. Meyer explained that wailua, or spirit, is a reality. Although it is unseen, and therefore has no form, we see the expression of wailua in life: in places, in natural elements, etc. If these things are then polluted, then the spirit will find its end. Tr. 04/01/17 vol. 31 at 120.	Citation does not support the proposition. There is no transcript from 4/1/17. See response to proposed finding of fact 178 above regarding beliefs.
243	32	Ms. Aloua testified that Mauna Kea is a cultural landscape that is deeply connected to traditional, Native Hawaiian traditional and customary practices. This landscape includes man made objects and places, in addition to, natural features. Tr. 2/15/15 vol.36 at 104.	Citation does not support the proposition. There is no transcript from 2/15/15. See response to proposed finding of fact 178 above regarding beliefs. This proposed finding of fact and citation is not evidence that customary and traditional practices occur within the area E location site of the TMT Observatory. There is no reliable probative and substantial evidence that the referenced practices are actually within the bundle of rights protected by article XII, section 7 of the Hawaii State Constitution.
244	33	The summit region of Mauna Kea "...is also by any standard of comparison one of the most culturally significant and archaeologically important places in the Hawaiian Islands. A number of Native Hawaiians regard Mauna Kea as the most sacred place on the island and some use the mountain as a place to conduct traditional and customary practices." Ex. A-55 at 1-1, FAIS-AP.	Not in dispute that certain individuals believe this to be true and that said statement is found in the exhibit. See response to proposed finding of fact 178 above regarding beliefs. This proposed finding of fact and citation is not evidence that customary and traditional practices occur within the specific area E location site of the TMT Observatory. There is no reliable probative and substantial evidence that the referenced practices are actually within the bundle of rights protected by article XII, section 7 of the Hawaii State Constitution
245	33	What we know today of Mauna Kea's ancient use and meaning we have learned from the physical clues left behind on the mountain.	See response to proposed finding of fact 244 above.

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		Ethnographic research explores more recent human activity and the traditions that have been handed down within families over time. Ex. B.37 at V-4 MP.	
246	33	There is no doubt that there are Native Hawaiians who are exercising traditional and customary rights on Mauna Kea. Ex. B.28 at 2-8, CMP.	Not in dispute generally that certain practices occur, but this proposed finding of fact and citation is not evidence that customary and traditional practices occur within the specific area E location site of the TMT Observatory.
247	33	The trails of Mauna Kea linked communities and cultural and natural resources together. To reach the summit, people left the near-shore and plains lands and traveled the mountain slopes to the summit. The trails ascend the slopes of Mauna Kea from nearly all of the major, and many of the smaller <i>ahupua'a</i> which lie upon Mauna Kea's slopes. Ex. B.37 at V-8, MP.	Not in dispute generally, however, these trails largely converge at Lake Wai'au, which is located 1.42 miles from the proposed site for the TMT Observatory. See Ex. C-18
248	33	Traditions pertaining to journeys on the mountain trails, and knowledge of Mauna Kea are still retained as important family history today. Ex. B.37 at V-8, MP.	See response to proposed finding of fact 247 above.
249	33	Significantly, many of these trails converge at Wai'au. Ex. B.37 at V-9, MP.	See response to proposed finding of fact 247 above.
250	33	Ms. Case has been present at times when Mo'oinanea, <i>mo'o wahine</i> and guardian of Lake Waiau, has shared her personal accounts about herself and her family as well as described the type of cultural traditions the <i>kūpuna</i> of old practiced on the Mauna a Wākea. Mo'oinanea has expressed her concerns about the existing observatories and proposed further desecration on the mountain with the new project. Ex. B.21a at 3, Case WDT.	See response to proposed finding of fact 178 above regarding beliefs. Unsupported/Unsubstantiated. The alleged observations are also not scientifically or logically verifiable and not demonstrated by admissible evidence; or otherwise the weight given to such testimony and exhibits is of little significance due to its lack of reliable probative value and/or materiality in connection with the criteria or legal issues to be resolved in this case.
251	33	According to Mo'oinanea, when <i>kanaka</i> of old travelled up to the	See response to proposed finding of fact 250

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		summit, they went by Lake Waiau to leave an offering or left an offering at the bottom of mountain. Offerings were made to Poliahu and Mo‘oinanea. Offerings often included fish, <i>kalo</i> , <i>mai‘a</i> , ‘uala wrapped in <i>lā‘ī</i> . Women sometimes gave <i>lehua</i> (white, orange, and red were usual colors/if white was not found, they used yellow), <i>kukui</i> , <i>kupukupu</i> , <i>māmane</i> , and young <i>lā‘ī</i> , wrapped with dried brown <i>lā‘ī</i> leaves. The flower bundle was usually tied to the top of the food pū‘olo. Ex. B.21a at 3-4, Case WDT.	above.
252	34	According to Mo‘oinanea, <i>kanaka</i> of old would collect snow to see how it was or they used to go up there to get centered. Ex. B.21a at 4, Case WDT.	<u>See response to proposed finding of fact 250 above.</u>
253	34	According to Mo‘oinanea, <i>kahuna</i> would also go for their chief to gather water from the lake as an offering for chiefs or places they travel to. First, they would have to state why they wanted to collect this water and their purpose for it. They also needed to state how much water was needed. Then a <i>lā‘ī</i> (ti-leaf) was put on the lake. If permission was granted, <i>lā‘ī</i> floats. If not, <i>lā‘ī</i> sinks. If the wind blows one back, they have to leave the mountain immediately. If one lies to her, they would be banished from mountain for a period of time. If it was an exchange of water from this same island, a <i>lā‘ī</i> was not needed. If from another island, then a <i>lā‘ī</i> was needed. One needed to state where the water was from first. If there was an exchange of water and permission was granted, one would collect water first and then pour their water in afterwards. Ex. B.21a at 4, Case WDT.	<u>See response to proposed finding of fact 250 above.</u>
254	34	Mo‘oinanea is fine with people putting their <i>piko</i> in the lake, but one has to have roots to the mountain. Ex. B.21a at 4, Case WDT.	<u>See response to proposed finding of fact 250 above.</u>
255	34	Ms. Case as a cultural practitioner has consistent Native Hawaiian traditional and customary practices connected to the entire mountain, including the northern plateau. Ex. B.21a at 5 Case WDT.	Object as overbroad and not verifiable as to location specific claims and actual practices or timing of said practices.

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			<p>Citation – <u>i.e.</u>, page 5 of Case’s direct testimony - does not support this proposition. On page 4 of her direct testimony, Case states “[a]t this time, I have consistent traditional practices connected to the entire mountain, including the northern plateau.” In this statement, Case does not describe her practices as “customary and traditional practices[,]” and, even if she did, “customary and traditional practices” has a distinct legal definition that Case has the burden to establish her practices fall under. See UH-TIO ¶¶324-354. There is no reliable probative and substantial evidence that her or her referenced practices are within the bundle of rights protected by article XII, section 7 of the Hawaii State Constitution. Case also does not explain how she will be prohibited from continuing her practices if the TMT Project is developed within the Astronomy Precinct on Mauna Kea. Case testified that she did not start conducting her practices on “the top of Mauna Kea[,”] including the northern plateau, until 2010. Tr. 1/11/17 at 228:1-19. During this entire time since 2010, Case has been able to conduct her practices with observatories being present on Mauna Kea. <u>Id.</u> at 229:10-25.</p> <p>This finding of fact and citation is also not evidence that customary and traditional practices occur within the area E location site of the TMT Observatory. Though area E is</p>

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			located on the northern plateau of Mauna Kea, the TMT Observatory will only occupy five acres of the northern plateau. <u>See</u> UH-TIO FOF ¶783 (noting that the TMT Observatory will only take up five of 2,000 acre Northern Plateau). Case did not proffer any evidence that she conducts cultural practices at the specific area E location site. No evidence of an actual practice within the 5 acre Area E site was proven.
			There is no reliable probative and substantial evidence that the referenced practices are actually within the bundle of rights protected by article XII, section 7 of the Hawaii State Constitution.
256	34	Ms. Case's traditional and customary practices include, but are not limited to, recitation of specific chants uttered on Mauna a Wākea, chants that ask for blessings, chants that express gratitude, chants that ask for rain and snow, chants that honor Poli'ahu, chants that call upon Wākea, Sky Father. Ex. B.21a at 5, Case WDT.	Not disputed that Ms. Case performs certain practices on unspecified areas of Mauna Kea, but no evidence was presented it was within the specific proposed TMT Project site as stated in response to proposed finding of fact 255 above.
257	34	Ms. Case's traditional and customary practices include rituals and ceremonies at <i>ahu</i> and sites there and dances we share only on the summit. These are the prayers and the chants connected to place, to the abode of Poli'ahu, and on the <i>pu'u</i> that bears her name. These are the chants in the realm of <i>wao akua</i> , in the domain of Wākea and the deities who make their presence known through the elements. These are the honoring chants that speak of her genealogical connections between the heavens and the earth and from the mountains to the sea. Ex. B.21a at 5, Case WDT.	<u>See</u> response to proposed finding of fact 255 above.
258	34	In addition, Ms. Case has held many formal ceremonies up on the	<u>See</u> response to proposed finding of fact 255

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		<p><i>pu'u</i> of Waimea with each ceremony beginning with facing Mauna Kea and gathering the breath and heartbeat of the mountain within my body. [see photo in Exhibit B.21e] As the sacredness and immensity of its vibration fills her and each dancer standing by her side, they honor the mountain's beauty and cultural importance with the words of chants such as this one: Ex. B.21a at 5, Case WDT.</p>	<p>above.</p> <p><u>See response to proposed finding of fact 255 above.</u></p>
259	35	<p>Exhibit B.21e includes photos depicting Native Hawaiian customary and traditional practices associated with ceremonies on Pu'u 'Owaowaka greeting Mauna a Wākea as well as on Mauna a Wākea. Exhibit B.21e.</p>	<p>There is no reliable probative and substantial evidence that the referenced practices are actually within the bundle of rights protected by article XII, section 7 of the Hawaii State Constitution</p> <p><u>See response to proposed finding of fact 255 above. See response to proposed finding of fact 178 above regarding beliefs.</u></p>
260	35	<p>Ms. Casse's tie to the mountain and cultural practices are formal and sacred, tied with deep and abiding <i>Aloha</i>. Ex. B.21a at 6, Case WDT.</p>	<p>There is no reliable probative and substantial evidence that the referenced practices are actually within the bundle of rights protected by article XII, section 7 of the Hawaii State Constitution</p> <p><u>See response to proposed finding of fact 255 above. See response to proposed finding of fact 178 above regarding beliefs.</u></p>
261	35	<p>Customary and traditional practices relating to the Northern Plateau of Mauna Kea include going there at sunrise to welcome the sun In the only way that you can on that spot, reciting particular chants in which the vantage points that we look at dictate that we are there, honoring the ancestors whose bones are there. Tr. 1/11/17 vol. 25 at 129, 130</p>	<p>See response to proposed finding of fact 255 above. No specificity as to location of bones or proof asserted in this proposed finding of fact.</p> <p>Ms. Case also fails to demonstrate how this practice will be adversely impacted by the TMT Project. There is no reliable probative and substantial evidence that the referenced</p>

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			practices are actually within the bundle of rights protected by article XII, section 7 of the Hawaii State Constitution.
262	35	Case and daughters go to the Northern Plateau to pray and chant and make correct for those who would disturb that area, to make pono in the best way, to pray the forgiveness chants, to shed tears, and to pray that chants assure our ancestors that we will do whatever can be done that they may never know that disturbance. Tr.1/11/17 vol. 25 at 130.	<u>See response to proposed finding of fact 255 above.</u> This proposed finding of fact also makes clear that this practice of Case and her daughters did not begin until after the TMT Project site was selected. There is no reliable probative and substantial evidence that the referenced practices are actually within the bundle of rights protected by article XII, section 7 of the Hawaii State Constitution.
263	35	Traditional chants found in resource books have been done and new ones based on those chants, understanding, practices, beliefs and life ways. Tr.1/11/17 vol. 25 at 130.	<u>See responses to proposed findings of fact 255 and 262 above.</u> There is no reliable probative and substantial evidence that the referenced practices are actually within the bundle of rights protected by article XII, section 7 of the Hawaii State Constitution.
264	35	The prayers and the chants done on the Northern Plateau and the ceremonies are different than what would be done elsewhere Tr.1/11/17 vol. 25 at 227, 228	<u>See responses to proposed findings of fact 255 and 262 above.</u> There is no reliable probative and substantial evidence that the referenced practices are actually within the bundle of rights protected by article XII, section 7 of the Hawaii State Constitution.
265	35	The chanting, the dancing and the practices, the foundation of which, is what has carried Case all through her life, from Pu'u Huluhulu to the Wekiu, the top of Mauna a Wakea. Tr.1/11/17 vol. 25 at 128	<u>See responses to proposed findings of fact 255 and 262 above.</u> There is no reliable probative and substantial evidence that the referenced practices are actually within the bundle of rights protected by article XII, section 7 of the Hawaii State Constitution.

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266	35	No shrines have been identified on top of cinder cones in the Mauna Kea Science Reserve. McCoy believes that these high and remote places were reserved for burying the dead. Ex. B.37 at V-9, MP.	Not in dispute that certain burials were located on specified areas of Mauna Kea previously, but this does not contradict the credible and well-supported fact that there are no known burials or burial sites in or near the TMT Project area. See UH-TIO FOF ¶¶342.c, 542, and 564.
267	35	Hawaiians also buried the bones of their dead on the slopes of Mauna Kea. Ex. B.37 at V-4, MP.	Not in dispute that certain burials were located on specified areas of Mauna Kea previously, but this does not contradict the credible and well-supported fact that there are no known burials or burial sites in or near the TMT Project area. See UH-TIO FOF ¶¶342.c, 542, and 564.
268	35	Continuity in the use of the summit area from pre-contact times to the present is evidenced in modern altars (<i>lele</i>) and less formal rock piles without offerings. B.62 at ii, FAIS MKSR.	Not in dispute generally, but Page 2-2 of the TMT Management Plan (Ex. R-1, Appx. B) states that “[t]here are no historic properties located within 200 feet of the limits of grading at the proposed TMT Observatory 13N site.” No credible evidence was presented to contradict the truth of this statement.
269	36	Alika and Anita (Kamaka'ala) Lancaster and many other native Hawaiians associate a number of the natural and cultural features on the landscape of Mauna Kea with their ancestor's activities and as repositories of their remains. Ex. B.38 App. I at 24, MP.	Not in dispute that certain individuals believe this to be true.
270	36	“Cultural resources” is a broad term that encompasses cultural and religious practices and beliefs plus historic properties, such as structures over 50 years old and archaeological sites according to the TMT FEIS. Ex. R-3 at 3-8.	See response to proposed finding of fact 178 above regarding beliefs.

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271	36	<p>The TMT project proposes to be built in an <u>undeveloped</u> area amongst the hundreds of the documented and undocumented <i>ahu</i> (shrines) and cultural sites. The concentration and placement of these sites on this northern plateau was not randomly done by our <i>kūpuna</i>. They were erected and established with specific intentions. Many of these <i>ahu</i> are interconnected similar to a star map. B.02a at 25, Flores WDT.</p> <p>Inaccurate/False. Not credible. The TMT Project is proposed to be built in the Astronomy Precinct, which Mr. Flores himself conceded during cross-examination was “substantially developed.” Tr. 1/30/17 at 234:5-8; see also WDT Flores at 4 (recognizing that the “public lands” for the proposed TMT Project are “fully developed”). Ironically, Mr. Flores uses the roads from this development to drive his truck up to the Mauna Kea summit. Tr. 1/30/17 at 233:25-234:4.</p> <p>Credible and substantial evidence was also presented from others, including other Petitioners and Opposing Intervenors, during the CCH demonstrating that the Astronomy Precinct is substantially or fully developed. See e.g., UH-TIO FOF ¶¶851, 859-864.</p> <p>Substantial and credible evidence was also presented establishing that the Northern Plateau was chosen in large part to avoid the most culturally sensitive areas of the summit ridge. See e.g., UH-TIO FOF ¶¶308, 342.c.</p> <p>Flores’ testimony is also contradicted by the credible and substantial evidence presented that it was found, after extensive consultation, that there are no known <i>ahu</i> (other than those that were erected after or in protest of the TMT Project) or historical features near the TMT</p>	

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			<p>Project area. <u>See UH-TIO FOF ¶¶342.c; 629.</u></p> <p>Flores fails to present any actual or independent evidence supporting his claim that ahu or shrines (other than those that were erected after or in protest of the TMT Project) will be impacted by the TMT Project. Flores merely relies on his own biased and unsubstantiated testimony. This is not sufficient to rebut the credible and substantial evidence submitted by UH in this CCH.</p>
272	36		<p><u>See response to proposed finding of fact 271 above.</u> There is no reliable probative and substantial evidence that the referenced practices are actually within the bundle of rights protected by article XII, section 7 of the Hawaii State Constitution.</p> <p><u>See response to proposed finding of fact 178 above regarding beliefs.</u></p>
273	36		<p><u>See response to proposed finding of fact 271 above.</u> Not in dispute as to beliefs by certain individuals. The alleged observations are not scientifically or logically verifiable and not demonstrated by admissible evidence; or otherwise the weight given to such testimony and exhibits is of little significance due to its lack of reliable probative value and/or</p>

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			<p>materiality in connection with the criteria or legal issues to be resolved in this case.</p> <p><u>See response to proposed finding of fact 178 above regarding beliefs.</u></p>
274	36	<p>All aspects of Hawaiian life were steeped in ritual. For the Hawaiian people, spiritual beliefs, cultural practices and all facets of daily life were intricately bound to the natural landscape of the islands. Ex. B.37 at V-2, MP.</p>	<p><u>See response to proposed finding of fact 178 above regarding beliefs.</u></p>
275	36-37		<p>The term 'shrine' is used by [Patrick] McCoy to describe all of the religious structures that exist in the summit region of Mauna Kea. The most common of the archaeological features on Mauna Kea, shrines are characterized by the presence of one or more upright stones. The shrines at Mauna Kea range from single uprights to more sophisticated complexes with pavements and prepared courts. The majority of shrines on Mauna Kea are located conspicuously on ridgetops or at breaks in the slope. It is not surprising that shrines were placed in prominent locations with commanding views of the landscape. Shrines have not been found on the tops of cinder cones. Ex. B.37 at V-7, MP.</p>
	37	<p>Most of the shrines in the Science Reserve are found on the northern and eastern slopes just above and below the 13,000 foot elevation. Ex. B.37 at V-12, MP.</p>	<p><u>See response to proposed finding of fact 275 above.</u></p>
276	37		<p>Stone uprights were typically set in a crack in the bedrock and braced with a few stones. In other shrines, most notably those in the north and east slopes, uprights were set on the top of a boulder. In shrines dispersed throughout the summit area, stone uprights were set into low rubble heaps or piles of stones. In only a few cases, cairns were built to support the stone upright. Platforms were also built to support one or more uprights. Ex. B.37 MP, at V-7.</p>
			<p><u>See response to proposed finding of fact 275 above.</u></p>
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278	37	<p>The non-occupational shrines range in complexity from simple features with a small number of uprights to more complex structures with courts and larger numbers of uprights.</p> <p>Most of the shrines found on Mauna Kea have just 1 to 3 uprights, however, some have as many as 24 or 25 stone uprights. McCoy speculates that the simple shrines were built and used by small family groups and the larger, more complex structures were built and maintained by a priesthood. McCoy reasons that the larger number of uprights indicate a larger number of gods than most Hawaiians would probably have known. In addition, many of these more complex sites are isolated from the main areas of worship.</p> <p>Ex. B.37 at V-7, MP.</p>	<u>See response to proposed finding of fact 275 above.</u>
279	37	<p>Mr. McCoy has interpreted the shrine complex in the summit region as evidence of an historically undocumented pattern of pilgrimage to worship the snow goddess, Poli‘ahu, and other mountain gods and goddesses. Ex. B.37 MP, at V-7.</p>	<u>See response to proposed finding of fact 275 above.</u> <u>See response to proposed finding of fact 178 above regarding beliefs.</u>
280	37	<p>Archaeologist Pat McCoy suggests that shrines located at the edge of the summit plateau may mark the transition to a spiritual zone associated with the summit of Mauna Kea (McCoy and McElroy, 1982). The shrines may be associated with the snow line and thus represent shrines to Poli‘ahu and/or other deities. Ex. B.37 at V-2 & V-4, MP</p>	<u>See response to proposed finding of fact 275 above.</u> <u>See response to proposed finding of fact 178 above regarding beliefs.</u>
281	37-38	<p>In August of 2016, LaRose accompanied Native Hawaiian cultural practitioners to the proposed TMT site and was able to provide ‘ike <i>kupuna</i> (ancestral insight) into the significance and interconnection of many of the cultural sites on the northern plateau of Mauna Kea. Based up her gifts as a ‘sensitive’, the following account is what was shown to her. “On this day, we were asked to see what was there in the past times. After the opening pule, my inner sight opened like a T.V. screen and clearly saw this scene: there were 2 large circles of stones approximately 30 feet in diameter. In both</p>	<p>Not credible. Ms. LaRose’s testimony was based on her feelings and entirely speculative. Her testimony was also not scientifically verifiable or logically credible and should be given no weight. See e.g., UH-TIO FOF ¶566.</p> <p><u>See response to proposed finding of fact 275 above.</u> <u>See response to proposed finding of fact 178 above regarding beliefs.</u></p>

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		<p>circles directly in the center was a black rock cylinder about 3 feet high with a hole in the center. It was perfect in shape and looked like it was made by using a mold. One circle had perfect black rock walls radiating out from the center cylinder; 4 pairs about 2 1 ft. high. Like spokes on a wheel. The other had perfectly formed wedgeshaped black rocks also radiating outwork from the center cylinder. There were other stone circles further away and all were contained in a very large circle of stones on the perimeter. The stones radiating out from the center were almost as high as the cylinder. [see Exhibit B.25b]</p> <p>Then I was shown the night sky and how the constellations appeared to move across the sky throughout the seasons. Then a constellation stopped beamed a column of starlight directly into the cylinder and it went into the earth. Other stars beamed their light into the other cylinders. The beam of light contained information which the ancient astronomers and navigators received directly into their whole being, a living transmission of knowledge and energy. Then the navigators had this living connection to the stars with which to sail the oceans. Then I was shown that there was a duplicate pattern of stones above the ones on the ground, but this was made of brilliant golden light that shown far into the sky. It was a beacon that could be seen from space by star beings. Star ancestors. This still exists in the dimension of a higher frequency than ours that is made of golden light. This place is what would now be called a star gate. The other three seers all saw the stone circles and received other information also in sync with what I saw. I have never seen anything like this before and have no previous knowledge of this." Ex. B.25a at 1-2.</p>	<p><u>See response to proposed finding of fact 281 above.</u></p>
282	38	Exhibit B.25b is a diagram of cultural sites on the northern plateau on Mauna Kea shown to Ms. LaRose. Exhibit B.25b.	<u>See response to proposed finding of fact 281</u>
283	38	Ms. LaRose testified that the real importance of these cultural sites	<u>See response to proposed finding of fact 281</u>

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		on the northern plateau is that at these sites, people can receive these specific knowledge directly through the crown of their head from particular stars. And these teachings are very similar to other nations on how they got star knowledge and how their navigators and their people could be so connected to the stars and know a lot of things that you could never know. Even with telescopes, you could not know or receive this knowledge. Tr. 1/19/17 vol. 27 at 207.	above.
284	38	In 1999, the Mauna Kea Summit Region Historic District (“MKSRHD”) was determined eligible for listing on the National Register. Ex. A-55 , at 1-1, FAIS-AP.	Not in dispute.
285	38	The proposed TMT project would be located within the Mauna Kea Summit Region Historic District (State Inventory of Historic Place #50-10-23-26869) which was determined by the DLNR - State Historic Preservation Division to be historically and culturally significant under all five criteria (A, B, C, D, & E) of the Hawai‘i Register of Historic Places and Hawai‘i Administrative Rules (§13-275) and under all four criteria (A, B, C, & D) of the National Register of Historic Places. Ex. R-1 at 4-1.	Objection as the document and exhibit referenced speaks for itself. Misrepresentation. Page 4-1 of R-1 provides that “The Historic District has been determined by the State Historic Preservation Division (SHPD) to be significant under all five criteria . . . ” It does not include the terms “historically and culturally” significant as misrepresented by the Flores-Case Ohana.

Page 4-1 of R-1 also makes no mention of the National Register of Historic Places or any determination by SHPD regarding the four criteria of National Register of Historic Places. Regardless, the Mauna Kea Summit Region Historic District (“MKSRHD”) is not currently listed on the National Register of Historic Places. See UH-TIO FOF ¶522 (citing Ex. A-1/R-1 at 4-3).

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			Moreover, the TMT Project “would have minimal adverse impact on the character of the District.” Ex. R-1 at 2-6.
286	38-39	The five criteria established for evaluating the significance of historic properties and assessing eligibility for placement on the National/Hawai‘i Registers of Historic Places are:	<p>See response to proposed finding of fact 285 above.</p> <ul style="list-style-type: none"> A) Associated with events that have made an important contribution to the broad patterns of our history; B) Associated with the lives of persons important in our past; C) Embodies the distinctive characteristics of a type, period, or method of construction, represents the work of a master, or possesses high artistic value; D) Have yielded, or is likely to yield information important for research on prehistory or history; E) Have an important value to the native Hawaiian people or to another ethnic group of the state due to associations with cultural practices once carried out, or still carried out, at the property, or due to associations with traditional beliefs, events or oral history accounts – these associations being important to the group’s history and cultural identity. Ex. R-5/B.34, FEIS, at G-54.
287	39	The MKSRHD is significant under all four National Register criteria, and criterion “e” of the Hawaii Administrative Rules, Chapter §13-275-6. The district is significant under criterion “a” because of the presence of the Mauna Kea Adze Quarry Complex (a National Historic Landmark), which was used over a period of 500 years or more and the hundreds of shrines in and outside of the quarry. Both the quarry and the shrines are associated with broad	<p>See response to proposed finding of fact 285 above. The Mauna Kea Adze Quarry Complex is 2.25 miles from the proposed TMT Project site. Ex. C-18.</p>

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		<p>patterns and events in Hawaiian prehistory. The district is significant under criterion “b” because of the association with several gods who may have been deified ancestors. These include Kukahau’ula, Lilinoe and Waiau. The sites in the adze quarry and many of the shrines embody distinctive characteristics of traditional Hawaiian stone tool manufacture by craft specialists and a distinctive type of shrine construction found in only a few other places in the Hawaiian Islands. These make the district significant under criterion “c.” Studies of the Mauna Kea Adze Quarry Complex and the on-going archaeological survey of the Mauna Kea Science Reserve have already made a significant contribution to our understanding of Hawaiian prehistory and history, and hold the potential to make even more contributions. The district is thus significant under criterion “d.” Finally, the district is significant under criterion “e” because of the presence of numerous burials and the hundreds of shrines which have been interpreted as evidence of a previously unknown land use practice in the form of pilgrimages to the summit of Mauna Kea to worship the gods and goddesses.</p> <p>Ex. R-5/B.34, FEIS; Ex. B.62 FAIS MKSR, at ii – iii.</p>	
288	39	<p>SHPD has begun working on the nomination of the MKSRHD to the National Register of Historic Places. Ex. A-55 at 7-1, FAIS-AP.</p>	<p>Not in dispute. However, it is notable that Ex. A-55 was prepared in January 2010 and the MKSHRD is still not listed on the National Register of Historic Places. <u>See</u> UH-TIO FOF ¶522 (citing Ex. A-1/R-1 at 4-3).</p>
289	39	<p>SHPD has repeatedly stated that they consider the summit region to be a historic district in a number of letters regarding astronomy and astronomy-related projects (See, Don Hibbard letter to Dierdre Maniya, April 24, 2002; Don Hibbard letter to Robert McLaren, January 10, 2001; Timothy Johns letter to Kenneth Kumor, October 26, 2000; Don Hibbard letter to Robert A. McLaren, May 3, 1999). Ex. R-4/B.33 at 27, FEIS.</p>	<p>Ex. B.33 was not received into evidence.</p>

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			Project. See e.g., UH-TIO FOF ¶1216 (SHPD provided comments on the CIA and were also consulted as to which groups and individuals should be contacted); 310 (SHPD recommended the option that was ultimately selected for the placement of the TMT Access Way); 514 (SHPD approved several AIs that were introduced and accepted as evidence in this CCH); and 545 (SHPD determined that Site 21449 was not a historic site); otherwise, the documents cited speak for themselves as cited.
290	40	With the recognition of the MKSRHD as eligible for the National Register there is now a single frame of reference that can be used in evaluating site significance for all of the historic properties on the top of Mauna Kea. Ex. A-55 at 7-2, FAIS-AP.	Not in dispute that this statement is found in the cited exhibit; however, it is vague and ambiguous.
291	40	Per the Mauna Kea Historic Preservation Plan [2000] prepared by SHPD: Within the [Mauna Kea Summit Region] historic district, the significance of properties is not evaluated individually because the summit region as a whole is considered eligible for inclusion in the National Register. Instead, the required assessments consider how each newly or previously recorded property potentially affected by a project contributes to the significance of the historic district as a whole. Ex. R-5/B.34 at G-55, FEIS.	Ex. B.34 was not received into evidence.
292	40	Pu'u Kukahau'ula State Historic Property (SIHP Site No. 50-10-23-21438) is a contributing component of the Mauna Kea Summit Region Historic District. Ex. R-5/B.34 at G-55, FEIS.	Ex. B.34 was not received into evidence.
293	40	Prior to the historic period, there are no other known sites on the series of cinder cones, including Pu'u Kukahau'ula, that comprise the 'summit' of Mauna Kea with the single exception of a cairn (Site 50-10-23-21209). There is a virtual absence of archaeological	Not in dispute as stated in the cited exhibit.

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294	40	sites on the very top of the mountain. Ex. A-55 at 6-4, FAIS-AP.	Citation – i.e., Ex. B37 - does not support the proposition.
295	40	Consideration of the properties included within the MKSRHD, and their associated practices and beliefs, suggests it to represent a type of historic property best referred to as a “cultural landscape”. A cultural landscape is a geographical definable area that clearly reflects patterns of occupation and land use over a long time period, as well as the cultural values and attitudes which guide and regulate human interaction with the physical environment. (Emphasis added.) Ex. B.37 at 45, MP, App. N.	<u>See response to proposed finding of fact 285 above.</u>
296	40-41	This “cultural landscape” has been determined eligible for the National and State Register of Historic Places under multiple criteria including cultural significance to the native Hawaiian People (cf. letter of D. Hubbard to R. Evans, September 12, 1991). As a result, archaeologists with DLNR-SHPD have referred the summit region of Mauna Kea as a “ritual landscape” with all of the individual parts contributing to the integrity of the whole summit region. (Emphasis added.) Ex. B.37 at 3, MP, App. I.	<u>See response to proposed finding of fact 285 above.</u>
297	41	Based on the Native Hawaiian traditional cultural practices and beliefs associated with Mauna Kea, as documented in the Malay (1999) oral history and consultation study, the MKSRHD could perhaps even more appropriately be considered a special type of cultural landscape referred to by the National Park Service as ethnographic landscapes: “those landscapes imbued with such intangible meanings that they continue to be deemed significant or even sacred by contemporary people who have continuous ties to the site or area”. Ex. B.37 at 45, App. N.	<u>See response to proposed finding of fact 285 above.</u>
298	41	“Cultural Attachment” embodies the tangible and intangible values	Not in dispute that certain individuals believe

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		<p>of a culture. It is how a people identify with and personify the environment (both natural and manmade) around them. Cultural attachment is demonstrated in the intimate relationship (developed over generations of experiences) that a people of a particular culture share with their landscape—for example, the geographic feature, the natural phenomena and resources, and traditional sites, etc., that make up their surroundings. This attachment to environment bears direct relationship to their beliefs, practices, cultural evolution, and identity of a people. In Hawai‘i, cultural attachment is manifest in the very core of Hawaiian spirituality and attachment to landscape. The creative forces of nature which gave birth to the islands (e.g., Hawai‘i), the mountains (e.g., Mauna Kea) and all forms of nature, also gave birth to <i>na kanaka</i> (the people), thus in Hawaiian tradition, island and human kind share the same genealogy...” Ex. B.37 at 27, MP, App. I.</p>	<p>this distinction. See response to proposed finding of fact 178 above regarding beliefs.</p>
299	41	Figure 3.7 of this archaeological inventory survey identified the locations of historic properties, traditional cultural properties, and find spots in the MKSR. Ex. A-55 at 3-12, FAIS-AP.	The document speaks for itself and any other characterization is denied.
300	41	The amount of data obtained in the surveys was overwhelming when compared to most archaeological surveys in Hawai‘i. This has limited the data analyses that could be undertaken to the shrines and selected artifact assemblages from the Pohakuloa Gulch quarry workshop site complex. Also, due to the large number of artifacts, the number of analyzed attributes is also limited in number. Ex. B.62 at i, FAIS –MKSR.	Mischaracterization. Misleading. Presented out of context. The Flores-Case Ohana mischaracterizes the document insofar as it uses the plural “surveys.” The statement in this finding of fact referred only to the archaeological inventory survey of the Mauna Kea Science Reserve, Ex. B.62.

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301	41	The largest concentration of historic properties and cultural resources is on the northern slope of Mauna Kea below the summit cones. Ex. A-55 at 6-1, FAIS-AP.	<p>Mischaracterization. Misleading. Presented out of context. Document speaks for itself. The Flores-Case Ohana's proposed finding of fact is not a full citation of McCoy's survey results. The Flores-Case Ohana neglects to mention that the 1982 report by Dr. McCoy that they rely upon for this finding of fact also states that they only "identified four [shrines] within the roughly 525-acre precinct" and only 21/22 sites total. Ex. A-55 at 6-1 (emphasis added). There is also no evidence that the "northern slope" of Mauna Kea that was surveyed included the 5 acre area E location.</p> <p>Page 6-1 also talks about "the largest concentration of sites[;]" it does not specifically state "historic properties and cultural resources" as misrepresented by the Flores-Case Ohana. Not all the historic properties were native Hawaiian sites. One was an old campsite.</p> <p>See responses to proposed findings of fact 300 and 301 above.</p>
302	41	Many of these sites are located within a narrow 220-ft contour interval, between the 12,900-ft and 13,100-ft elevations on the northern slope. Ex. A-55 at 6-1, FAIS-AP.	
303	41	A total of 263 historic properties were identified in the archaeological surveys of the MKSR. Ex. B.62 at i, FAIS-MKSR.	<p>Mischaracterization. Misleading. Presented out of context. The Flores-Case Ohana mischaracterizes the document insofar as it uses the plural "surveys." The statement in this finding of fact referred only to the archaeological inventory survey of the Mauna Kea Science Reserve, Ex. B.62.</p>

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			<u>See responses to proposed findings of fact 300 and 301 above.</u>
304	41	The term ‘shrine’ is used by Archaeologist [McCoy] to describe all of the religious structures that exist in the summit region of Mauna Kea. Ex. B.37 at 21, MP, App. N.	Citation – <u>i.e.</u> , Ex. B37 - does not support the position.
305	42	Most of the shrines found on Mauna Kea have 1 to 3 uprights. However, some have as many as 24 or 25 stone uprights. Ex. B.37 at 21, MP, App. N.	Not in dispute to the extent the document speaks for itself.
306	42	Shrines were placed in prominent location with commanding views of the landscape. Ex. B.37 at 21, MP, App. N.	Not in dispute except to the extent it conveys that the stone itself can see the landscape.
307	42	There are 29 historic properties with a total of 48 features recorded in the MKSR that are interpreted as <i>Burials or Possible Burials</i> . Ex. B.62 at 5-44 & 5-45, FAIS-MKSR.	Misrepresentation. The document speaks for itself. The complete sentence on page 5-44 of Ex. B.62 provides: “The survey identified 29 sites with a total of 48 features in the Science Reserve that have been interpreted as burials or possible burials.” There is no evidence, and the Flores-Case Ohana does not provide any, that any of these sites are located at or near the TMT Project site. This finding of fact and cited exhibit does not contradict the credible and well-supported fact that there are no known burials or burial sites near the TMT Project area. See UH-TIO FOF ¶342.c, 542, and 564.
308	42	PSCI’s recommendation as part of the Cultural Resources Management Plan (CRMP): Section 4.3.2: In view of the documented existence of human burials in the Science	PCSI prepared a burial treatment plan for the entire MKSR and Mauna Kea Access Road Corridor, including the TMT Project site. <u>See</u>

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		Reserve there is a need to develop a burial treatment plan (BTP) to protect all known burial sites. Given the possibility that more human remains will be found inadvertently in the Science Reserve in the future there is also a need to develop an Inadvertent Discovery Plan. Ex. A-55 at 8-2, FAIS-AP.	UH-TIO FOF ¶570. The burial treatment plan was approved by the Hawaii Island Burial Council and SHPD. See <u>id.</u>
309	42	The functions of 15 historic properties recorded in the MKSR are listed as <i>Stone Markers/Memorials</i> . Ex. B.62 at 5-27, FAIS-MKSR.	Not in dispute to the extent the document speaks for itself.
310	42	One of the more ambiguous classes of sites are piles or stacks of rocks believed to be markers of some kind or memorials to a person or event. In all but a couple of cases, the actual function is unclear. Ex. B.62 at 5-45, FAIS-MKSR.	Misleading. The document speaks for itself. The complete paragraph on page 5-45 of Ex. B.62 reads as follows: "One of the more ambiguous classes of sites are piles or stacks of rocks believed to be a marker of some kind or a memorial to some person or event. In all but a couple of cases the actual function is unclear. There are 15 sites that may have been survey markers, piles of stones left by unknown visitors as memorials of their visit to the top of a cinder cone or way-markers along an unmarked trail (Table 5.8). The cairns are quite unlike those which have been interpreted as burials. One of the 13 sites (26244) is the USGS survey marker on Pu'u Wekiu. Another USGS marker was found on Pu'u Poli'ahu and assigned SIHP number 27579. Site 26246 is an example of a cairn interpreted as a marker, perhaps a trail marker in this case (Figure 5.11). The locations of the 15 sites are shown in Figure 5.12."
311	42	Cultural resources in the Science Reserve include a large number of remains that at present cannot be classified as historic properties or sites, as normally defined in State and Federal laws, but which	Not in dispute to the extent the document speaks for itself.

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		nevertheless need to be considered in developing appropriate management strategies which, according to Tom King (1998:235), need to consider all cultural resources. Ex. B.62 at 5-54. FAIS-MKSR.	
312	42	As noted above in the summary of previous archaeological work in the Science Reserve (Section 3.1), in 1997 SHPD instituted a process of recording what were initially referred to as “locations” but are now being termed “find spots,” although this term generally refers to isolated artifacts (cf. McCoy 1984a). “Find spots” are cultural resources that are either obviously modern features (e.g., camp sites with tin cans, pieces of glass and other modern material culture items), or features that cannot be classified with any level of confidence as historic sites because of their uncertain age and function (e.g., a pile of stones on a boulder). Ex. B.62 at 5-54, FAIS-MKSR.	Not in dispute to the extent the document speaks for itself.
313	42-43	A 1997 SHPD reconnaissance survey began the process of recording what were initially referred to as “locations” but are now being termed “find spots” – a general term referring to man-made remains that are either obviously modern features or features that cannot be classified by archaeologists with any level of confidence as historic sites because of their uncertain age and function. Ex. A-55 at 3-10, FAIS-AP.	Not in dispute to the extent the document speaks for itself.
314	43	Remains that are either modern or cannot be classified with any level of confidence as historic sites because of their uncertain age, such as many of the rock piles, were recorded as “find spots,” following a practice begun by the State Historic Preservation Division (SHPD) during a reconnaissance survey of selected areas of the Mauna Kea Science Reserve in 1997. Ex. B.62 at ii, FAIS-MKSR.	Misleading. The document speaks for itself. The complete paragraph on page ii of Ex. B.62 reads as follows: "Continuity in the use of the summit area from pre-contact times to the present is evidenced in modern altars (ilele) and less formal rock piles without offerings. Remains that are either modern or cannot be classified with any level of confidence as historic sites because of their uncertain age,

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			<p>such as many of the rock piles, were recorded as "find spots," following a practice begun by the State Historic Preservation Division (SHPD) during a reconnaissance survey of selected areas of the Mauna Kea Science Reserve in 1997. A total of 339 find spots were recorded in the project area. It is highly likely that some of these are actually historic properties, but to demonstrate this would require a more detailed analysis of their morphology and location."</p>
315	43	<p>"Find spots" are cultural resources. Ex. A-55 at 5-20, FAIS-AP.</p>	<p>Misleading. The document speaks for itself. The complete paragraph on page 5-20 of Ex. A-55 reads as follows: "Find spots" are cultural resources that are either obviously modern features (e.g., camp sites with tin cans, pieces of glass and other modern material culture items), or features that cannot be classified with any level of confidence as historic sites because of their uncertain age and function (e.g., a pile of stones on a boulder). Seven find-spots were identified in the Astronomy Precinct in 2005 (see Figure 5.1; Table 5.5), including a previously identified find-spot found during a 1997 survey (McCoy 1999a). This find-spot was relocated during the 2005 survey. The number of such finds, which the State Historic Preservation Division (SHPD) first started to record in 1997 as a way of tracking changes in the cultural landscape and distinguishing old from new cultural remains ("sites"), appears to</p>

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			be increasing, especially in areas close to existing roads."
316	43	A total of 339 cultural resources ("find spots") were recorded in the MKSR. It is highly likely that some of these are actually historic properties, but to demonstrate this would require a more detailed analysis of their morphology and location. Ex. B.62 at ii, FAIS-MKSR.	The document speaks for itself.
317	43	The functions of the vast majority (over 250) of these find spots recorded in the MKSR are listed as <i>Markers</i> . Ex. B.02y-2, FAIS-MKSR, Appendix E.	The document speaks for itself.
318	43	The functions of over 65 of these find spots recorded in the MKSR are listed as <i>Unknown</i> . Ex. B.02y-2, FAIS-MKSR, Appendix E.	The document speaks for itself.
319	43	Only about 16 of these find spots recorded in the MKSR have been identified as potentially being modern features. Ex. B.02y-2, FAIS-MKSR, Appendix E	Not in dispute to the extent the document speaks for itself.
320	43	Some of the find spots could not be definitely dated and could possibly be over 50 years in age and would instead be classified as historic properties. Ex. A-63 at 1, SHPD letter.	Not in dispute to the extent the document speaks for itself.
321	43	It is highly likely that some of these find spots are actually historic properties, but to demonstrate this would require a more detailed analysis of their morphology and location. Ex. B.62 at ii, FAIS-MKSR.	Not in dispute to the extent the document speaks for itself.
322	43	In August 2005, PCSI was contracted by OMKM to undertake an archaeological inventory survey of the Astronomy Precinct, located within the MKSR. Ex. A-55 at 1-1 & 1-3, FAIS-AP.	Not in dispute to the extent the document speaks for itself.
323	43	The archaeological field survey crew for the Astronomy Precinct and surrounding lands was limited to PCSI co-principal investigators, Patrick McCoy and Dennis Gosser, and staff, Richard Nees and Reid Yamasato. Ex. A-55 at 1-4, FAIS-AP.	There is no indication that the archaeological field survey done by PCSI of the Astronomy Precinct was "limited" to those four individuals. Page 1-4 identified a "field crew" also. See Ex. A-55 at 1-4.

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324	44	This field survey crew did not include any Native Hawaiian cultural practitioners. Ex. A-55 at 1-4, FAIS-AP.	Citation does not support the proposition.
325	44	The confidence level of archaeologists in assigning functions to many of the sites and component features varies. Ex. A-55 at 4-4, FAIS-AP.	<p>Misleading. The document speaks for itself. The complete paragraph on page 4-4 of Ex. A-55 reads as follows: " Definitions of the functional site and feature types found in the project area are presented below. Functional inferences are based on a number of factors, including morphology, construction style and materials, locational context and comparison with similar remains of known function. The confidence level in assigning functions to many of the sites and component features varies."</p>
326	44	"No universally accepted definitions of site and feature exist in Hawaiian archaeology, and it is unlikely that any ever will because of the architectural complexities of the archaeological landscape in many areas of the Hawaiian Islands, and the different perspectives that archaeologists hold on how the archaeological landscape should be observed and recorded." Ex. A-55 at 4-3, FAIS-AP.	<p>Misleading. Presented out of context. The Flores-Case Ohana mischaracterizes the document insofar as it leaves out the final sentence of the paragraph which reads: ". Though it makes inter-site and regional comparisons difficult, it must be remembered that site classification is a tool rather than an end in itself."</p>
327	44	"While sites and features can be easily described in terms of formal attributes, there is in reality no dichotomy between form and function, since function is inferred from form,... " Ex. A-55 at 4-3, 4-4, FAIS-AP.	Not in dispute to the extent the document speaks for itself.
328	44	Archaeological classifications are not immutable. They may require revision. (Ex. A-55 at 4-3, FAIS-AP.	Not in dispute to the extent the document speaks for itself.

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329	44	Due to the uncertainty of archaeologists, a number of sites in the MKSR have not been accurately identified and/or their functions are listed as <i>Unknown</i> . Ex. B.02y-2, Appendix E, FAIS-MKSR.	Citation does not support the proposition. There is no evidence, and the Flores-Case Ohana does not present any, that any of the find sports listed in Ex. B.02y-2 were not accurately identified. This finding of fact is pure speculation and should be struck.
330	44	A Traditional Cultural Property [TCP] can be defined generally as one that is eligible for inclusion in the National Register because of its association with cultural practices or beliefs of a living community that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community. Ex. A-55 at 5-15 & 5-17, FAIS-AP.	SHPD recognition, not federal. See UH-TIO FOF ¶¶529-542.
331	44	The National Register Bulletin 38 “ <i>Guidelines for Evaluating and Documenting Traditional Cultural Properties</i> ” (Parker and King 1990), provides agencies further guidance for assessing the importance of traditional cultural beliefs or practices (or cultural attachment) while assessing cultural resources and proposed actions that will affect their integrity. Ex. B.37 at 27 MP, App. I.	Citation – i.e., Ex. B.37 – does not support proposition. The National Register Bulletin 38 expressly provides that “the fact that [a property] is significant does not mean that it cannot be disturbed, or that the project must be foregone.” Ex. B.08j at 4.
332	44-45	In defining “ <i>traditional cultural properties</i> ”, the National Register explains: “‘traditional’ in this context refers to those beliefs, customs, and practices of a living community of people that have been passed down through the generations, usually orally or through practice. The traditional cultural significance of a historic property, then, is significance derived from the role the property plays in a communities historically rooted beliefs, customs, and practices. Ex. B.37 at 27 MP, App. I.	See response to proposed finding of fact 331 above.
333	45	The entire mountain region of Mauna Kea from approximately the 6,000 foot elevation to the summit, including the Mauna Kea Science Reserve, was identified in the Cultural Impact Assessment [CIA] Study (1999) as a potential TCP. Ex. A-67 at 39, CIA.	Misleading. Presented out of context. The relevant CIA noted that Maly had identified the entire mountain region of Mauna Kea, from approximately the 6,000 foot elevation to the summit as a potential traditional cultural

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			<p>property. Ex. A-67 at 39. More importantly, SHPD declined to designate all lands on Mauna Kea above the 6,000 foot level as a TCP. See UH-TIO FOF ¶1538.</p> <p>See response to proposed finding of fact 333 above.</p>
334	45	<p>The CIA identified a number of potential traditional cultural properties within the Mauna Kea Science Reserve Master Plan project area. These are historic properties that are of importance to Native Hawaiians because they possess traditional cultural significance derived from associated cultural practice and beliefs. These historic properties include the following:</p> <ul style="list-style-type: none"> • The entire mountain region, from approximately the 6,000 feet elevation (The saddle area) to the summit; • Pu`u Kukahau `ula--a cinder cone that is the summit peak of Mauna Kea (sometimes also referred to by the modern name of Pu`u Wekiu); • Pu`u Poliahu--a prominent summit region cone situated west of Pu`u Kukahau `ula; • Pu`u Lilinoe--a prominent summit region cinder cone situated to the south east of Pu`u Kukahau `ula; • Waiau--a shallow lake and its adjacent cinder cone situated in the summit region, to the southwest of Kukahau `ula; • Pu`u Makana and Kaupo vicinity--a cluster of two prominent cinder cone situated near the edge of the summit region to the northeast of Pu`u Kukahau `ula; • Mauna Kea--Umikoa Trail--and foot and horse trail extending between Kuka iau in Hamakua to immediately south of the summit area; • Mauna Kea-Humu`ula Trail--a foot and horse trail extending from the Humu `ula sheep station up to the summit area; and • A number of lesser foot and horse trails--including the Mauna 	

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		Kea-Laupahoehoe-Waipunalei Kanakaleonui Trail, the Mauna Kea-Makahala-Kemole Trail, and the Waiau-Waikiki-Pu'u La'au Trail. Ex. B.37 at 39-40, MP, App. N.	
335	45	The Mauna Kea National Natural Landmark is held in trust by the State of Hawai'i, and its 83,900 acre boundary incorporates the lands within the conservation district, including the Mauna Kea Science Reserve, Ice Age Natural Area Reserve and the Mauna Kea Forest Reserve. Ex. R-4/B.33 at 3-6. FEIS Vol. II.	<p>Ex. R-4 at pp. 3-6 of 531 is a November 4, 2009 letter from the National Park Service ("NPS") received during the DEIS comments period, with corresponding responses. Notably, after receiving responses to its comment letter, the NPS did not challenge the FEIS. <u>See</u> UH-TIO FOF ¶¶200-201. The NPS also did not state that the TMT Project should not be built. Rather, the NPS noted that "[t]he importance of the Thirty Meter Telescope Observatory project and its inherent value in the pursuit of trying to answer fundamental questions related to the nature and underpinnings of the universe is beyond reproach." <u>Id.</u> at p. 3 of 531. The NPS also stated in its letter its intent to review the current National Natural Landmark ("NNL") designation and at the very least may consider removal of the 525-acre Astronomy Precinct from the current designation. There is no evidence that the NPS has removed the NNL designation from the 525-acre Astronomy Precinct despite its knowledge since 2009 of the TMT Project.</p>
336	45-46	Mauna Kea was listed as a National Natural Landmark in 1972. One of the reasons given for placing the mountain on this register	<p>Ex. B.33 was not received into evidence.</p> <p>Citation – i.e., Ex. B.28 – does not support proposition. But otherwise not in dispute.</p>

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		by the National Park Service is that Mauna Kea is the "Most majestic expression of shield volcanism in the Hawaiian Archipelago, if not the world." Ex B.28 Appendix 4 at 9, CMP.	
337	46	Since 1972, Mauna Kea has been designated as a National Natural Landmark and listed in the registry of National Natural Landmarks as a result of its singular topography, morphology, and geology. Ex R-3/B.32 at 3-106, FEIS.	Not in dispute to the extent the document speaks for itself.
338	46	The objectives of the NNL program are fourfold: to encourage the preservation of sites illustrating the geological and ecological character of the United States; to enhance the scientific and educational value of the sites thus preserved; to strengthen public appreciation of natural history; to foster a greater concern for the conservation of the nation's natural heritage. Ex. R-4/B.33 at p 19 of 531, FEIS Vol. II.	Ex. B.33 was not received into evidence, but otherwise not in dispute.
339	46	"Few sites possess [sic] better credentials to justify their national significance than does Mauna Kea." (quoting a Mauna Kea NNL program).Ex R-3/B.32 at 3-106, FEIS.	Citation does not support the proposition. But, otherwise not in dispute.
340	46	First and foremost, Mauna Kea is the exposed portion of the highest insular mountain in the United States, rising up over 30,000 feet above its submerged base in the Pacific Ocean. Second, on its slopes is found Lake Waiau, the highest lake in the United States. Third, though located in the tropics, indisputable evidence of glaciations is present above the 11,000 foot level. Lastly, possibly transcending all of these nationally significant qualities, is the fact that Mauna Kea is the most majestic expression of shield volcanism in the Hawaiian Archipelago if not in the world. (quoting Rory Westberg, Acting Regional Director, NPS) Ex. R-4/B.33 p 4 of 531, FEIS Vol. II.	Not in dispute to the extent the document speaks for itself.
341	46	"Rising nearly 33,000 feet from the ocean floor, with a peak elevation of 13,796 feet, Mauna Kea is the highest point in the Pacific Basin and the highest island mountain in the world. Ex B.28	Citation – i.e., Ex. B.28 – does not support proposition. But otherwise not in dispute.

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342	46	Appendix 4 at 9, CMP. Abundant evidence of glacial striae, boulders, police and grooves shows that an ice cap covered Mauna Kea's summit during the Pleistocene era. Ex R-3/B.32 FEIS Vol. 1, at 3-106.	Ex. B.32 was not received into evidence, but otherwise not in dispute.
343	46	“Mauna Kea is currently estimated to be between 600,000 and 1.5 million years old and is considered by the U.S. Geological Survey (USGS) to be an active post-shield volcano. While there has been no recent volcanic activity at Mauna Kea, volcanologists believe that it “is likely to erupt again”. Ex B.28 at 5-24 – 5-25, CMP.	Not in dispute to the extent the document speaks for itself.
344	46-47	Though located in the tropic, indisputable evidence of glaciation is present above the 11,000 foot level. Lastly, possible transcending all of these nationally significant qualities is the fact that Mauna Kea is the most majestic expression of shield volcanism in the Hawaiian Archipelago if not in the world. Ex. R-4/B.33 at 3-6, FEIS Vol. II.	Ex. B.33 was not received into evidence, but otherwise not in dispute.
345	47	Other unique geologic features of Mauna Kea include numerous cinder cones (pu‘u) that rise above lavas of the upper plateau, and evidence of glaciers that covered nearly 27-square miles of the summit region during the Pleistocene Epoch (Ice Ages) approximately 18,000 years before present.” Ex B.28 at 9, CMP Appendix 4.	Citation – i.e., Ex. B.28 – does not support proposition. But otherwise not in dispute.
346	47	“Because of its elevation, Maunakea’s summit was repeatedly glaciated during the past few hundred thousand years, and preserves the best glacial record of any oceanic volcano on Earth.” Ex R-3/B.32 at 3-105, FEIS.	Ex. B.32 was not received into evidence, but otherwise not in dispute.
347	47	Hawaiian Hotspot’ magmas, pushed up through the oceanic crust, began building Mauna Kea approximately 750,000 years ago. Throughout its building stages, a‘a and pahoehoe lavas flowed from three main rift zones, forming a volcano resembling a warrior’s shield. Towards the end of the post-shield stage eruptions became more explosive, discharging magma	Citation – i.e., Ex. B.28 – does not support proposition. But otherwise not in dispute.

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		referred to as tephra. These eruptions created the numerous cinder cones dotted across the highest elevations of Mauna Kea. Ex B.28 CMP at 9, Appendix 4.	
348	47	"Three cinder cones (<i>pu'u</i>) make up the summit of Mauna Kea (Pu'u Hau'ōki, Pu'u Wēkiu, Pu'u Haukeia), collectively referred to as Pu'u o Kūkāhau'ula, a traditional deity associated with fisherman families. There are additional cinder cones (e.g., Pu'u Keonehehe'e, Pu'u Makanaaka, Pu'u Poepoe, Pu'u Poli'ahu, Māhoe, and Pu'u Waiau) below the summit." Ex B.28 at 9, CMP Appendix 4.	Citation – i.e., Ex. B.28 – does not support proposition. But otherwise not in dispute.
349	47	Mauna Kea has two series of volcanic rocks. The older Hamakua series, mostly composed of olivine basalts, forms the bulk of the mountain. The Laupahoehoe series consists of "hawaiites" and comprises a veneer that overlays the upper part of the mountain. Ex B.37 at IV-1, MP.	Not in dispute to the extent the document speaks for itself.
350	47	Subglacial volcanic eruptions gave rise to lava flows that cooled quickly, yielding a fine grained, dense black rock called obsidian, prized by Hawaiians for adzes, at a site known as Keanakako'i. Ex B.37 at IV-2, MP.	Not in dispute to the extent the document speaks for itself.
351	47	Due to glaciation during the last ice age of the Pleistocene era, ice covered approximately 27 square miles of the summit and ranged in thickness from 200-350 feet, to elevations of 10,500 feet, where ash and cinder were scraped away by glacial flow erosion. Ex. B.37 at IV-1, MP.	Not in dispute to the extent the document speaks for itself.
352	48	Glacial moraine and meltwater deposits of fine sediments, and glacially sculptured features of cinder cones are evidence of summit glaciation that led to the formation of Lake Waiau, one of the highest lakes in the United States. Ex. B.37 at IV-2, MP.	Not in dispute to the extent the document speaks for itself.
353	48	The proposed TMT location is entirely underlain by a single lava flow. A single chemical analysis of this lava flow shows the flow to be of typical "hawaiite" composition (a type or alkali-rich basalt).	Ex. B.32 was not received into evidence, but otherwise not in dispute.

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354	48	<p>Ex R-3/B.32 at 108, FEIS, Vol. 1.</p> <p>Glacial Features: Mauna Kea has been repeatedly glaciated over the past several hundred thousand years (Porter, 1979b), but evidence of the earlier glacial episodes becomes more fragmentary with time, as glacial deposits are buried by younger lavas and glacial deposits.</p> <p>Ex. B.38 App. H at 8.</p>	<p>Not in dispute to the extent the document speaks for itself.</p>
355	48	<p>The glacial features of Mauna Kea are unique in Hawaii and are important for public education and appreciation. They are not widely known to Mauna Kea visitors, and the most appropriate management tool for their preservation and utilization as educational resources is public awareness. Brochures to describe these unique features and public exhibits to document their locations and modes of origin will allow Hawaii residents and visitors to realize their importance to the environment of Mauna Kea. B.38 App. H at 16.</p>	<p>Not in dispute to the extent the document speaks for itself.</p>
356	48	<p>In the <i>Mauna Kea Science Reserve Geological Resources Management Plan</i> done by J. Lockwood of Geohazards Consults International, Inc. (2000) included in the <i>2000 Master Plan</i>, this report states the following:</p>	<p>Many geologic features and structures found within the Mauna Kea Science Reserve are unique in Hawaii and some are rare elsewhere on Earth. Because of the remoteness of the Mauna Kea summit area and the lack of vegetation, these features are generally well-preserved and have great value as esthetic and as educational resources.</p> <p>Mauna Kea is the world's best example of a glaciated oceanic tropical volcano, and preserves the only glacial deposits and glacial features found in Hawaii.</p>

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		The interaction of molten lava and glacial ice during the Ice Ages has formed unique geologic features that are well-preserved in some areas and are amongst the world's best examples of these rare structures. Ex. B.38 App. H at 2.	
357	49	The management area begins at approximately 9,200 ft (2,804 m) on Mauna Kea and extends to the summit, at 13,796 ft (4,205 m), encompassing three distinct areas: the Mauna Kea Science Reserve (Science Reserve), the mid-level facilities at Hale Pōhaku, and the Summit Access Road (see Figure 3-1). These areas are collectively referred to as the “UH Management Areas.” The UH Management Areas on Mauna Kea are classified in the resource subzone of the state conservation district lands. Ex. B.28 at 3-1, CMP.	The history of the MKSR, the General Lease, and the UH Management Area is more accurately described in the UH-TIO FOF/COL. See UH-TIO FOF ¶113-117.
358	49	Figure 3-1 in the CMP depicts the UH Management Areas. Ex. B.28 at 3-2.	<u>See response to proposed finding of fact 357 above.</u>
359	49	The largest area is the Mauna Kea Science Reserve (TMK: (3) 4-4-15:09), which was established in 1968 through a 65-year lease (General Lease No. S-4191) between the BLNR and the University. Originally, the UH Management Areas encompassed approximately 13,321 acres (5,391 ha), but in 1998, 2,033 acres (823 ha) were withdrawn as part of the Mauna Kea Ice Age Natural Area Reserve (NAR). The area now encompasses 11,288 acres of state land (4,568 ha) above approximately 11,500 ft (3,505 m) elevation, which, according to the lease is to be used “as a scientific complex.” Ex. B.28 at 3-1, CMP.	<u>See response to proposed finding of fact 357 above.</u>
360	49	The University’s 2000 Master Plan for the UH Management Area designated 525 acres (212 ha) of the leased land as an “Astronomy Precinct,” where development is to be consolidated to maintain a close grouping of astronomy facilities, roads and support infrastructure. The remaining 10,763 acres (4,356 ha) are	<u>See response to proposed finding of fact 357 above.</u> See also UH-TIO FOF ¶¶167-178 for astronomy development under the 2000 Master Plan.

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		designated a Natural/Cultural Preservation Area in order to protect natural and cultural resources within the UH Management Areas. Ex. B.28 at 3-1, CMP.	
361	49	Situated at an elevation of about 9,200 ft (2,804 m), the mid-level facilities at Hale Pōhaku (TMK (3) 4-4-15:12) also fall under the area of management responsibility of this CMP by General Lease No. S-5529, which extends through 2044. This parcel comprises 19.3 ac (7.8 ha) on the south slope of Mauna Kea and encompasses the Onizuka Center for International Astronomy, the Visitor Information Station (VIS), and construction laborer camp, comprising two old buildings and four modern cabins. Ex. B.28 at 3-4, CMP.	<u>See response to proposed finding of fact 357 above.</u>
362	49	The third management area, the Summit Access Road, extends from Hale Pōhaku to the boundary of the UH Management Areas, at approximately 11,500 ft (3,505 m). Although the Grant of Easement (No. S-4697) includes only the Summit Access Road, the 1995 Management Plan added a strip approximately 400 yards (366 m) wide on either side of the road but excluding areas within the NAR, to the UH Management Area. Ex. B.28 at 3-4, CMP.	<u>See response to proposed finding of fact 357 above.</u>
363	50	In 1964, Mauna Kea lands were placed within the state's Conservation District, giving management authority to the BLNR. Ex. B.28 at 3-5, CMP.	<u>See response to proposed finding of fact 357 above.</u>
364	50	The UH Management Areas are in the resource subzone of the State Conservation District. For this reason, any land use in these areas is regulated by the BLNR, and all activities and uses within the UH Management Areas must be in compliance with BLNR's Conservation District regulations. Ex. B.28 at 2-2, CMP.	<u>See response to proposed finding of fact 357 above.</u>
365	50	The State of Hawaii, by its BLNR issued General Lease S-4191 to the University of Hawaii 'i, all of that certain parcel of land situated at Ka'ohē, Hamakua, County and Island of Hawaii 'i for the term of 65 years from January 1, 1965 to the last day of December, 2033.	Incorrect date. The General Lease started from January 1, 1968, not 1965.

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366	50	Ex. B.17f at 1, GL.	No citation is provided.
		According to Exhibit A of the General Lease contains all of that certain parcel of land being a portion of the Government land of Ka‘ohe, being also a portion of Mauna Kea Science Reserve covered by General Lease S-4191 to the University of Hawaii“i situated at Ka‘ohe, Hamakua, Island of Hawai‘i, Hawai‘i.	Not credible. The only citation provided by the Flores-Case Ohana is the direct testimony of Mr. Flores. They do not provide any legal authority for this finding of fact. Mr. Flores has no legal background. Tr. 1/30/17 at 222:23-223:1. The testimony of an individual with no legal background and without supporting legal citations regarding alleged legal obligations or requirements is not credible.
367	50	BLNR/DLNR, representing the State as the Lessor, has the sole legal obligation, duty, and responsibility to appropriately manage and protect the conservation and public trust lands of Mauna Kea. Ex. B.02a at 4.	
368	50	The State leases the Mauna Kea Science Reserve to the University of Hawai‘i, with day-to-day management delegated by the Board of Regents to the Office of Mauna Kea Management. Ex. R-7/B.70 at 8.	Ex. B.70 was not received into evidence, but otherwise not in dispute.
369	50	The University also controls approximately 19 acres of Land and at Hale Pōhaku, the site of the mid-elevation support facilities. Ex. R-7/B.70 at 8.	Ex. B.70 was not received into evidence, but otherwise not in dispute.
370	50	A third management area is the Summit Access Road that extends from Hale Pōhaku to the boundary of the Science Reserve. This includes a 400-yard corridor on either side of the road, excluding those areas within the adjacent Mauna Kea Ice Age Natural Area Reserve. Ex. R-7/B.70 at 8.	Ex. B.70 was not received into evidence, but otherwise not in dispute.
371	50	The General Lease (S-4191), dated June 21, 1968, states that the university 12.) “shall not damage, remove excavate, disfigure, deface, or destroy and object of antiquity, prehistoric ruin, or	Not in dispute to the extent the document speaks for itself.

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372 51	monument of historic value.” Ex. B.17f at 5, GL.		Not in dispute to the extent the document speaks for itself.
373 51	The General Lease (S-4191) requires that: 5.) “The lessee shall not sub-lease, subrent, assign or transfer any rights there under without the prior written approval of the BLNR.” Ex. B.17f at 4, GL.		Not in dispute to the extent the document speaks for itself.
374 51	The General Lease (S-4191) states that: 2.) “The lessee shall keep the demised premises and improvements in a clean, sanitary, and orderly condition Ex. B.17f at 3, GL.		Misleading. Partial quotation. Paragraph 6 of the General Lease, Ex. B.17f provides: “ <u>Improvements</u> . The Lessee shall have the right during the existence of this lease to construct and erect buildings, structures and other improvements upon the demised premises; provided, that plans for construction and plot plans of improvements shall be submitted to the Chairman of the [BLNR] for review and approval prior to commencement of construction. The improvements shall remain the property of the Lessee, and shall be removed of or disposed of by the Lessee at the expiration or sooner termination of this lease; provided, that with the approval of the Chairman such improvements may be abandoned in place. The Lessee shall, during the term of this lease, properly maintain, repair and keep all improvements in good condition.”
375 51	The General Lease (S-4191) states that: 1a) “No activity shall be permitted which will result in the pollution of the waters of Lake Waiau” Ex. B.17f at 2, GL.		Partial quotation of paragraph in General Lease, but otherwise not in dispute.
376 51	General Lease S-4191 from DLNR to the University for the use of the Mauna Kea Science Reserve does not confer an expectation of		Citation does not support the proposition.

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377	51	exclusivity onto the University. Ex. B.17f at 4, GL.	Not in dispute to the extent the document speaks for itself.
378	51	The University has entered into scientific partnership agreements with various organizations to develop and use observatory facilities on Mauna Kea. As a part of these agreements, the University has subleased parcels of the UH Management Areas to those organizations. Ex. B.28 at 6-1, CMP.	Not in dispute to the extent the document speaks for itself.
379	51	Twelve telescope facilities are in operation in the summit area. These include: eight major optical/infrared telescopes, one 0.6 meter telescope, two single-dish millimeter/submillimeter-wavelength telescopes, and a submillimeter array. The VLBA Antenna Facility is situated at the 12,200 foot elevation of the UH Management Area. B.28 at 6-1, CMP.	Citation does not support the proposition. The Astronomy Precinct is home to eight optical and/or infrared observatories and three submillimeter observatories. See UH-TIO FOF ¶238.
380	51-52	All telescope subleases occur within the University-designated “Astronomy Precinct,” except for one antenna that was built before the Astronomy Precinct was established by the University. Ex. B.28 at 3-1, CMP.	Citation does not support the proposition. The Astronomy Precinct is home to eight optical and/or infrared observatories and three submillimeter observatories. See UH-TIO FOF ¶238.
381	52	The Department of Land and Natural Resources, DLNR is headed by the BLNR and manages the state's public lands. Several divisions within DLNR share management responsibility for Mauna Kea lands, including the Division of Aquatic Resources (DAR), Division of Conservation and Resource Enforcement (DOCARE), the Division of Forestry and Wildlife (DOFAW), the Natural Area Reserves Commission, the Land Division, the Office of Conservation and Coastal Lands (OCCL), and the State Historic Preservation Division (SHPD). Ex. B.28 at 3-12.	Not in dispute to the extent the document speaks for itself.
		Division of Aquatic Resources. DAR has as its mission to manage, conserve and restore the state's unique aquatic resources and ecosystems for present and future generations. This agency sets overall water conservation, quality and use policies; defines beneficial and reasonable uses; protects ground and surface water	Not in dispute to the extent the document speaks for itself.

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		resources, watersheds and natural stream environments; establishes criteria for water use priorities while assuring appurtenant rights and existing correlative and riparian uses and establishes procedures for regulating all uses of Hawai‘i’s water resources. Ex. B.28 at 3-12.	
382	52	Division of Conservation and Resource Enforcement. DOCARE is responsible for enforcing all laws and rules that apply to all lands managed under DLNR. This includes protecting and conserving the state’s lands and natural resources, investigating complaints and violations, and monitoring all leases, permits, and licenses issued by DLNR. Pursuant to Act 226 Session Laws of Hawai‘i 1981, DOCARE’s enforcement officers have full police powers to execute all state laws and rules within all state lands. The division’s Island of Hawai‘i branch includes Mauna Kea in the East Hawai‘i district. Ex. B.28 at 3-12.	Not in dispute to the extent the document speaks for itself.
383	52	Division of Forestry and Wildlife. DOFAW is charged with protecting and managing watersheds, natural resources, outdoor recreation resources, and forest product resources. It is also charged with public education and develops and manages statewide programs on forest and wildlife resources as well as natural area reserves and trail and access systems. DOFAW manages the Mauna Kea Forest Reserve. DOFAW also manages outdoor recreation programs and activities, including hunting, which occurs on state-owned lands on Mauna Kea. Ex. B.28 at 3-12.	Not in dispute to the extent the document speaks for itself.
384	52	Natural Area Reserves Commission. The Natural Area Reserves Commission is administratively attached to DLNR; its staff is in DOFAW. It establishes criteria that are used in determining whether an area is suitable for inclusion within the state reserves system. The commission also establishes policies and criteria for the management, protection, and permitted uses of the reserves	Not in dispute to the extent the document speaks for itself.

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		<p>system. The statewide reserves system was established with the mandate of protecting the best remaining examples of native ecosystems and geological sites on state managed lands. There are currently 19 reserves, including the Mauna Kea Ice Age NAR. Ex. B.28 at 3-12.</p>	
385	52-53	<p><u>Land Division</u>. The Land Division is responsible for managing state-owned lands in ways that will promote the social, environmental, and economic well-being of Hawai‘i’s people and for ensuring that these lands are used in accordance with the goals, policies, and plans of the state. Lands that are not set aside for use by other government agencies come within the direct purview of the Land Division, as do the management and enforcement of leases, permits, executive orders, and other encumbrances for public lands. The division also investigates local land problems, maintains data for the State Land Information Management System, serves as custodian for all official transactions relating to public lands, and maintains a central repository of all government documents dating back to the “Great Māhele” of 1848. Ex. B.28 at 3-12.</p>	Not in dispute to the extent the document speaks for itself.
386	53	<p><u>Office of Conservation and Coastal Lands</u>. DLNR reorganized the Land Division in 2002, creating the OCCL. The office regulates and enforces land use for approximately two million acres of private and public lands that lie within the state’s conservation district, including Mauna Kea. OCCL is also responsible for processing conservation district land use requests, developing administrative rules for the conservation district, investigating complaints and violations, and monitoring all CDUP conditions. Ex. B.28 at 3-13.</p>	Not in dispute to the extent the document speaks for itself.
387	53	<p><u>State Historic Preservation Division</u>. SHPD helps to carry out the responsibilities outlined in the National Historic Preservation Act (NHPA) (see Section 3.4.1). The goal of the NHPA is to preserve</p>	<p>Irrelevant/Immateriel. NHPA review does not apply to the TMT Project. See UH-TIO COL ¶427-44.</p>

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		<p>and protect historical and culturally significant properties. The division is guided by the Statewide Historic Preservation Plan (2001)⁶ and the rules and regulations set forth in Chapter 6E of the Hawai‘i Revised Statutes. SHPD manages several programs to promote the use and conservation of historic properties, including those on Mauna Kea. These programs include: Statewide Inventory of Historic Properties, Burial Sites Program, Certified Local Government Program, National Main Street Program, Historic Preserves Program, Information and Education Program, Interagency Archaeological Services, and maintenance of the Hawai‘i and National Register of Historic Places. SHPD also reviews proposed development projects to ensure minimal effects of change on historic and cultural assets. Ex. B.28 at 3-13.</p>	
388	53	<p>Hawai‘i Island Burial Council. The management of all human remains over 50 years old falls under the jurisdiction of SHPD. Island burial councils are administratively attached to SHPD to address concerns relating to Native Hawaiian burial sites. The burial council determines whether to relocate or preserve in place any previously identified Native Hawaiian burial sites. The burial council also works to educate landowners as to the cultural beliefs and views regarding burials encountered on their lands. Any burial protection plan or burial treatment plan for Mauna Kea must be done in consultation with Hawai‘i Island Burial Council (HIBC). Ex. B.28 at 3-13.</p>	<p>Not in dispute to the extent the document speaks for itself.</p>
389	53	<p>As the lessee, the University has responsibility for managing the UH Management Areas. The UH Board of Regents (“UH BOR”) has final approval authority over major projects. Ex. B.28 at 3.9.</p>	<p>Not in dispute to the extent the document speaks for itself.</p>
390	54	<p>The acceptance of the 2000 Master Plan by the UH BOR prompted the creation of Office of Mauna Kea Management (OMKM), the Mauna Kea Management Board (“MKMB”), and Kahu Kū Mauna. The MKMB serves in an advisory capacity to</p>	<p>Not in dispute to the extent the document speaks for itself.</p>

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		the UHH Chancellor and Kahu Kū Mauna serves in the advisory capacity, primarily to the MKMB, but also to the UHH Chancellor. The MKMB has also established several advisory committees, including the MKMB Environmental Committee and the MKMB Hawaiian Cultural Committee. Ex. B.28 at 3.9.	Not in dispute to the extent the document speaks for itself.
391	54	While policy-making authority ultimately rests with the UH BOR, development of policy matters related to UH Management Areas on Mauna Kea originates with OMKM and University of Hawai'i at Hilo ("UHH"), and as needed, in coordination with other UH divisions, State and Federal agencies, and appropriate community organizations. Ex. B.02Z at 1, CMP IP.	Not in dispute to the extent the document speaks for itself.
392	54	Office of Mauna Kea Management. OMKM was established in 2000 and is responsible for the day-to-day management of the cultural and natural resources of the UH Management Areas. OMKM is housed within and funded by the UH-Hilo, and OMKM staff report directly to the Chancellor of UH Hilo. Included within OMKM's charge is the responsibility to "protect, preserve and enhance the natural, cultural, and recreational resources of Mauna Kea"; a significant piece of this mandate is coordination with other stakeholders, both public and private. OMKM also works with other agencies on issues that are related to the mountain but outside OMKM's jurisdiction. In addition, OMKM establishes management policies and oversees the ranger program. Ex. B.28 at 3.9.	Not in dispute to the extent the document speaks for itself.
393	54	Mauna Kea Management Board. The MKMB is comprised of seven members of the community who are nominated by the UH Hilo Chancellor and approved by the UH Board of Regents. The MKMB advises the Chancellor and OMKM. The volunteer members represent a cross section of the community and serve as the community's main voice, advising on activities, operations and land uses planned for Mauna Kea. MKMB works closely with	Not in dispute to the extent the document speaks for itself.

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394	54	<p>Kahu Kū Mauna. Ex. B.28 at 3.11.</p> <p>Kahu Kū Mauna. Kahu Kū Mauna (Guardians of the Mountain) is a nine-member volunteer council whose members are approved by the MKMB. Kahu Kū Mauna advises the MKMB, OMKM, and the UH Hilo Chancellor on Hawaiian cultural matters affecting the UH Management Areas. The council comprises individuals from the Native Hawaiian community. Members are selected on the basis of their awareness of Hawaiian cultural practices, traditions and significant landforms as applied to traditional and customary use of Mauna Kea, and their sensitivity to the sacredness of Mauna Kea. Ex. B.28 at 3.11.</p>	<p>Not in dispute to the extent the document speaks for itself.</p>
395	54-55	<p><u>Advisory Committees.</u> Other committees have been formed to advise OMKM and the MKMB on specific topics. They include the MKMB Environment Committee, which provides expertise on environmental issues; the Hawaiian Cultural Committee, which assists in integrating Hawaiian perspectives into OMKM's programs; the Wēkiu Bug Scientific Committee; and the Public Safety Committee. These committees are coordinated by OMKM. Ex. B.28 at 3.11.</p>	<p>Not in dispute to the extent the document speaks for itself.</p>
396	55	<p><u>Rangers.</u> Shortly after its founding in the fall of 2000, OMKM established the ranger program to help educate visitors, monitor for violations of the permitted uses within the UH Management Areas, and generally help provide for the health and safety of visitors. A key responsibility is conducting patrols by 4 wheel drive vehicles to the summit four times daily. The primary purpose of these patrols is to observe and document the activities of the general public, observatory personnel, and commercial tour operators. Patrol reports are submitted to OMKM daily. Rangers perform a variety of other duties including providing emergency assistance for lost or injured people in the summit area, assisting stranded motorists, coordinating litter removal, conducting trail maintenance,</p>	<p>Not in dispute to the extent the document speaks for itself.</p>

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		inspecting the observatories for compliance with their CDUPs, and providing visitors some cultural information about Mauna Kea. The rangers typically have diverse backgrounds, from those with cultural ties to the land, to those drawn to the mountain because of astronomy, to those looking to share their knowledge about the important natural resources of the area. Ex. B.28 at 3.11.	No citation is provided. But, otherwise not in dispute
397	55	Institute for Astronomy. The IfA, based at UH Mānoa, conducts state-of-the-art astronomical research. Its faculty and staff are also involved in astronomy education, and in the development and management of the observatories on Haleakala and Mauna Kea. IfA oversees the conduct and coordination of astronomical research in the Science Reserve, including longterm planning and visioning.	Not in dispute to the extent the document speaks for itself.
398	55	<u>Mauna Kea Observatories Oversight Committee.</u>	The Mauna Kea Observatories Oversight Committee is composed of representatives from all of the observatories including those operated by IfA. Each observatory pays into accounts held by The Research Corporation of the University of Hawaii that are used to fund MKSS activities including road maintenance, snow removal, facilities maintenance and management at Hale Pōhaku, common utilities and the VIs. Ex. B.28 at 3.11.
399	55	<u>Mauna Kea Observatories Support Services.</u>	Mauna Kea Observatories Support Services (MKSS) operates under the direction of the observatories through the Mauna Kea Observatories Oversight Committee funds and oversees the general maintenance and logistical services to all Mauna Kea observatories and the facilities at Hale Pōhaku. MKSS also supports, under the direction of OMKM, ranger services. Under the 2000 Master Plan, at least some of MKSS' services are to be transferred to OMKM, but no deadline was specified and the transfer has not occurred. The MKMB recently approved the transfer of the management and oversight of MKSS to OMKM. Ex. B.28 at 3.11.

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400	56	The UH BOR approved the <i>Mauna Kea Science Reserve Master Plan</i> ("2000 Master Plan") in June 2000. Ex. B.28 at 3-9, CMP.	The UH Board of Regents adopted the Mauna Kea Science Reserve Master Plan in June 2000. Ex. A-9 at 2-1.
401	56	The <i>2000 Master Plan</i> was not adopted nor approved by BLNR. Ex. B.28 at 3-9, CMP.	Incorrect page cite. Misleading. Presented out of context. The Master Plan is an internal policy and planning guide for the University and therefore BLNR approval was never sought. See UH-TIO FOF ¶123.
402	56	In the <i>2000 Master Plan</i> , the University concluded that there was a need for a single entity to manage the comprehensive plan for the Science Reserve and called for the management organization to be housed within the University system and funded as an ongoing program unit of the UHH. Ex. B.28 at 3-9, CMP.	Incorrect page cite, but otherwise not in dispute.
403	56	In accordance with the <i>2000 Master Plan</i> , UHH Chancellor established the OMKM on August 1, 2000 and charged the office with ensuring compliance with and implementation of the <i>2000 Master Plan</i> . Ex. B.28 at 3-9, CMP.	Incorrect page cite, but otherwise not in dispute.
404	56	UHH, through its OMKM, together with the MKMB and the Kahu Kū Mauna Council, comprise the University of Hawai‘i's management entity for its managed lands on Mauna Kea. Ex. B.02z at 1, CMP IP.	Not in dispute to the extent the document speaks for itself.
405	56	On management issues, OMKM consults with Kahu Kū Mauna Council and MKMB. The latter shall recommend a course of action. OMKM reports MKMB's recommendations directly to the UHH Chancellor, who in turn forwards their recommendations to the UH President for final decision. If required, the UH Board of Regents has final approval. Ex. B.02z at 1, CMP IP.	Incomplete. MKMB also approves management policies, programs and actions, and makes recommendations to the UH Hilo Chancellor on proposed major projects. See UH-TIO FOF ¶126.
406	56	The MKMB is comprised of seven members, plus two UH-BOR members exofficio, who advise UHH and OMKM. Ex B.28 at 3-1, CMP.	Citation does not support the proposition. See UH-TIO FOF ¶126 instead.
407	56	MKMB members are nominated by the UHH Chancellor and	Incorrect page cite, but otherwise not in dispute.

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408	56	Kahu Kū Mauna advises MKMB, OMKM, and UHH regarding Hawaiian cultural matters affecting the UH Management Areas. Ex B.28 at 3-11, CMP.	Incorrect page cite, but otherwise not in dispute
409	56	Kahu Kū Mauna members are approved by the MKMB. Ex B.28 at 3-11, CMP.	Incorrect page cite, but otherwise not in dispute
410	56	In the review and approval process for projects, including major projects, UHH follows the guidelines established in the <i>2000 Master Plan</i> , and protocols and policies established by the UH BOR. Ex. B.02z at 1, CMP IP.	Not in dispute to the extent the document speaks for itself.
411	57	Upon approval of the UH Comprehensive Management Plan (“CMP”), the BLNR made the UH BOR responsible for implementing the CMP. In accepting that responsibility, the UH BOR delegated implementation of the CMP through normal UH governance channels to UHH, OMKM, and MKMB and also assigned two members of the UH BOR to sit as ex-officio, nonvoting members on the MKMB. Ex R-3/B.32 at 3-148, FEIS.	Ex. B.32 was not received into evidence. Incorrect page cite, but otherwise not in dispute.
412	57	The UHH, through OMKM, is responsible for implementing the CMP for UH Management Areas on Mauna Kea. Ex. B.02z at 1, CMP IP.	Not in dispute.
413	57	The OMKM has primary responsibility for managing the UH Management Areas, ensuring the coordinated planning and execution of activities so they are consistent with applicable legal mandates, authorities, and policies. Ex B.28 at 3-1, CMP.	Not in dispute.
414	57	OMKM is responsible for ensuring compliance with and implementation of the <i>2000 Master Plan</i> . Ex. B.28 at 3-8, CMP.	Not in dispute.
415	57	Included within OMKM’s charge is the responsibility to “protect, preserve and enhance the natural, cultural, and recreational resources of Mauna Kea”; a significant piece of this mandate is coordination with other stakeholders, both public and private. Ex. B.28 at 3-9, CMP.	Not in dispute.

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416	57	OMKM is tasked to work with other agencies on issues that are related to the mountain but outside OMKM's jurisdiction. Ex. B.28 at 3-8, CMP.	Incorrect page cite, but otherwise not in dispute.
417	57	In addition, OMKM establishes management policies and oversees the ranger program. Ex. B.28 at 3-8, CMP.	Incorrect page cite and misleading. The Master Plan's community-based management entity is composed of OMKM, MKMB, and Kahu Kū Mauna. See UH-TIO FOF ¶125.
418	57	<p><u>Consistency or Pono</u> – The University understands that when the CMP is implemented, it is especially important that its actions are consistent with the contents of the plan. Doing so not only validates the content of the plan, but also reinforces the input provided by those who contributed to its preparation and strengthens the relationships that were formed during the process. Ex. B.28 at 4-1, CMP.</p>	Incorrect page cite, but otherwise not in dispute.
419	57-58	<p>The CMP specifically addressed multiple land uses and resource values within the UH Management Areas. Pursuant to Judge Hara's decision, <i>Mauna Kea Anaina Hou, et al v. Board of Land and Natural Resources</i>, Civ. No. 04-1-397, Decision and Order dated January 19, 2007 (Hara 2007), BLMR shall approve a comprehensive management plan that considers multiple uses as a precondition for any future development on Mauna Kea (see Section 3.2). The CMP was prepared in accordance with Judge Hara's decision. Ex. B.28 at 2-2 to 2-3, CMP.</p>	Not in dispute.
420	58	The Board of Land and Natural Resources approved a Comprehensive Management Plan ("CMP") for the Mauna Kea Science Reserve on April 9, 2009.	<p>The development of the Comprehensive Management Plan ("CMP") and related sub-plans, including the approval of the CMP and sub-plans by BLMR is more accurately and completely captured in UH-TIO FOF ¶¶136-158.</p>
421	58	The CMP built on pre-existing management plans, including the 1995 Management Plan for UH Management Areas and the 2000	<p><u>See response to proposed finding of fact 420 above.</u></p>

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422	58	Mauna Kea Master Plan.	Citation does not support the proposition. Page 8 of R-7 does not support the proposition that the 1995 Management Plan was not reviewed or and/or approved by BLNR. It also does not support the proposition that BLNR never reviewed the 1995 Management Plan. Ex. B.70 was also not received into evidence.
423	58	Unlike the CMP and Subplans, the 1995 Management Plan for UH Management Areas and the 2000 Master Plan were not reviewed or approved by BLNR. Ex. R-7/B.70 at 8.	<p>Footnote 6 of page 8 of R-7 provides, in full:</p> <p>“The 2000 Mauna Kea Master Plan was never approved by BLNR. It is considered an internal UH planning document. It should be noted however that many elements of the 2000 Mauna Kea Master Plan have been incorporated into the CMP, and several Subplans discussed in this report. The 2000 plan formed the basis for the establishment of the Office of Mauna Kea Management as well as new design guidelines to guide future telescope development.”</p>
423	58	Once approved, the CMP will be the controlling management plan for the UH Management Areas; it will supersede and replace the 1995 Management Plan. Ex. B.28 at 2-3, CMP.	Not in dispute, but see response to proposed finding of fact 420 above.
423	58	The CMP will not replace the 2000 Master Plan, which continues to serve as the University’s development planning framework for the responsible stewardship and use of the UH Management Areas. As the CMP maintains consistency with the 2000 Master Plan, future updates to that plan should be consistent with the CMP. Ex. B.28 at 2-3, CMP.	Not in dispute, but see response to proposed finding of fact 420 above.

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424	58	It is important to maintain compatibility and consistency of recommendations between the 2000 Master Plan and the CMP, to ensure that identified facility needs and designs are consistent with the overarching management plan put forth in the CMP (see Section 7.2.1). Ex. B.28 at 7-58, CMP.	Not in dispute, but see response to proposed finding of fact 420 above.
425	58	The CMP will be the “approved management plan” for any future land use. Accordingly, all activities and uses within the UH Management Areas will be consistent with the management actions described in the CMP. This will provide consistency and long-term viability of the management objectives. Ex. B.28 at 2-3, CMP.	Not in dispute, but see response to proposed finding of fact 420 above.
426	58	The CMP will be the “approved management plan” for any future land use. Accordingly, all activities and uses within the UH Management Areas will be consistent with the management actions described in the CMP. This will provide consistency and long-term viability of the management objectives. Ex. B.28 at 2-3, CMP.	Not in dispute, but see response to proposed finding of fact 420 above.
427	58	A Comprehensive Management Plan differs from the standard Management Plan referred to in Hawai‘i Administrative Rules (HAR) §13-5 Exhibit 3, MANAGEMENT PLAN REQUIREMENTS. The standard Management Plans discussed in Exhibit 3 are intended for projects with a specific, limited use (e.g. forestry, or aquaculture). A CMP, by contrast, is needed for larger parcels with multiple significant land uses. Ex. R-7/B.70 at 8.	The cited exhibit is dated February 25, 2011. Title 13, Chapter 5 of the Hawai‘i Administrative Rules (“HAR”) was amended on or about August 12, 2011. It is unclear if the cited exhibit is referring to the old or the current HAR. In any event, as fully stated in UH-TIO COL ¶¶143-164, the TMT Project has satisfied the requirement of a management plan under both the old and current HAR.
428	58-59	The CMP was developed with the following concepts in mind: <ul style="list-style-type: none">• Mauna Kea is a culturally significant site. The high elevation	See also response to proposed finding of fact 420 above. Ex. B.70 was not received into evidence.
			Not in dispute, but see response to proposed finding of fact 420 above.

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		areas of Mauna Kea represent a unique global resource that should be preserved for future generations. <ul style="list-style-type: none"> Management activities will be focused on limiting the impacts of human activities on cultural and natural resources. The planning and execution of resource management programs will involve input from the larger community (e.g., managers, scientists, educators, cultural practitioners, and the public). Ex. B.28 at 2-4, CMP. 	
429	59	Implementing the Mauna Kea CMP requires careful planning, sufficient funding, adequate staffing, and ongoing review and evaluation of program successes and failures. The <i>Implementing and Evaluating the Comprehensive Management Plan for UH Managed Lands on Mauna Kea</i> provides a strategy for implementing the Mauna Kea CMP, with a focus on immediate and short-term needs. It also identifies a methodology for evaluating the success of the plan and for determining any needed changes in management strategies. B.02z at 1, CMP IP.	Not in dispute, but <u>see</u> response to proposed finding of fact 420 above.
430	59	The CMP provides a framework and guidelines for each use, and identifies areas of joint or shared responsibility. Ex. R-7/B.70 at 8.	Ex. B.70 was not received into evidence. <u>See</u> also response to proposed finding of fact 420 above.
431	59	The need for a comprehensive management plan to ensure resource protection was also identified in the audits of the University and their management of Mauna Kea and the Mauna Kea Science Reserve conducted by the Office of the Legislative Auditor in 1998 and 2005. Ex. B.28 at 2-2, CMP.	Not in dispute, but <u>see</u> response to proposed finding of fact 420 above.
432	59	The role of the CMP in considering future land use is to guide the evaluation of proposed projects from the standpoint of potential impacts to cultural and natural resources, and to provide management actions that can be adopted by BLNR as special conditions in any CDUPs that it may issue. Ex. B.28 at 7-55, CMP.	Incomplete. The following and last sentence specifically provides: "The Board of Land and Natural Resources shall have final approval over all land uses on conservation lands pursuant to the Conservation District Use Permitting Process." Ex. A-9 at 7-55.

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433	59	<p>The principles of adaptive management require regular review of the program and revision of management goals, objectives, actions, and techniques, to improve the performance of the program. There are two primary reasons to evaluate the implementation of the Mauna Kea CMP. The first is to demonstrate that by implementing the management actions, desired outcomes are being achieved. The second is to continually improve the management program in terms of efficiency and quality. Ex. B.02z at 16.</p>	<p>Not in dispute, but see response to proposed finding of fact 420 above.</p>
434	59	<p>Two review processes, an annual progress report and a five-year management outcome assessment, are recommended to assess the success of the management program and to enable revision of the CMP. Ex. B.02z at 16.</p>	<p>Not in dispute, but see response to proposed finding of fact 420 above.</p>
435	60	<p>It should be noted that any land use proposal for Mauna Kea would still need to go through the complete environmental review process; the CMP is corollary to the review process, and provide an additional framework for project development. Ex. R-7/B.70 at 8.</p>	<p>Ex. B. 70 was not received into evidence. See also response to proposed finding of fact 420 above.</p>
436	60	<p>The CMP provides a process through which it can be regularly updated as part of an adaptive management strategy. That process will allow the BLNR and the University to evaluate and modify management approaches over time based on new information (see 7.4.2) that may become available. Ex. B.28 at 2-3, CMP.</p>	<p>Not in dispute, but see response to proposed finding of fact 420 above.</p>
437	60	<p>Section 7.4.2 of the CMP outlines the requirements and process for monitoring, evaluating, and updating the CMP. Ex. B.28 at 7-63, CMP.</p>	<p>Misrepresentation. Section 7.4.2 of the CMP, “outlines the process for monitoring, evaluating, and updating the CMP.” Ex. A-9 at 7-63. The Flores-Case Ohana inserted “requirements” into the above direct quotation from the CMP. There is no evidence to support that Section 7.4.2 details “requirements.” Instead, as noted specifically therein, “[t]he CMP is intended to provide a <u>guide</u> for managing existing and future activities and</p>

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			<p>uses, and to ensure ongoing protection of Mauna Kea's cultural and natural resources, many of which are unique." Ex. A-9 at iii (emphasis added); <u>see also</u> Ex. R-7 at 8 (noting that the CMP provides "a framework and guidelines for each use or resource"). Indeed, treating the CMP as setting forth strict "requirements" is inconsistent with the adaptive management principles that the CMP is based upon as recognized by the Flores-Case Ohana in, <i>inter alia</i>, finding of fact 433.</p> <p>In addition, as demonstrated fully below, the University is in compliance with CMP.</p>
438	60	Regular monitoring and evaluation of the CMP is needed to determine if management actions are effective over time and are meeting management needs, and to ensure that the best possible protection is afforded Mauna Kea's resources. Ex. B.28 at 7-64, CMP	<p>Not in dispute, but <u>see</u> response to proposed finding of fact 420 above.</p> <p>It should also be noted that the same paragraph that the Flores-Case Ohana quotes from provides that "the cultural resources in the UH Management Areas have been well documented." Ex. A-9 at 7-64. This sentence was conveniently omitted from the Flores-Case Ohana's findings of fact.</p>
439	60	The CMP will need to be reviewed and revised as new, pertinent information becomes available about the resources being managed. Ex. B.28 at 7-64, CMP	<p><u>See</u> response to proposed finding of fact 437 above. <u>See also</u> UH-TIO FOF ¶ 189-190.</p>

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440	60	<p>Monitoring and evaluation of the effectiveness of the CMP should occur annually, and an annual progress report should be prepared.</p> <p>A major review and revision of the CMP should occur every five years, using information contained in the annual reports.</p> <p>(emphasis added) Ex. B.28 at 7-64, CMP</p> <p>The Flores-Case Ohana's claim that the University is not in compliance with the CMP because it has not been updated is incorrect. When the BLNR approved the CMP, it only required the University or its designee to submit and present annual reports on the status of the CMP management actions. The BLNR does not require the University to prepare a five-year update, as argued, but provides that OMKM may do one. Ex. B.02z at § 4.2.2 at 17. This language is permissive, not mandatory.</p> <p>OMKM's position is that a separate five-year review and a five-year amendment is premature because five years is too short a period to fully vet all management actions. If OMKM were to amend the CMP, it would be relatively minor edits, such as the spelling of place names and eliminating redundancies. Moreover, a five-year review is not necessary because OMKM's annual reports are cumulative and reflect everything that was done since the implementation of the CMP. Ex. A-133 at 5-6; Tr. 12/12/16 at 180:8-181:1. Therefore, all information that would have been included in a five-year review was and is incorporated in annual reports, such as OMKM's 2015 annual report. Exhibit A-21; Tr. 12/12/16 at 182:17-184:1; see also UH-TIO FOF ¶¶180, 189-190.</p> <p>See also response to proposed finding of fact 437 above.</p>

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441	60	<p>Five-year evaluation and revision should include consultation with federal and state agencies and the local community, to inform stakeholders on program progress, and to gather input on changes or additions to management activities. Ex. B.28 at 7-64, CMP</p>	<p><u>See responses to proposed findings of fact 437 and 440 above.</u></p>
442	60	<p>The CMP must also be updated to comply with any requirements or conditions imposed by the BLNR on the CMP upon acceptance of the plan. Ex. B.28 at 7-64, CMP</p>	<p><u>See responses to proposed findings of fact 437 and 440 above. The CMP was updated to comply with the BLNR's conditions for approval by preparing the subplans to the CMP, which were approved by BLNR in 2010. UH-TIO FOF ¶¶140-145, 149-155.</u></p>
443	60	<p>The requirement for UH to complete a “major review every five years” of the CMP is further stipulated in the CMP Implementation Plan (2010) as outlined below:</p>	<p><u>4.2.2 Five-Year Management Outcome Analysis and CMP Revision</u> The OMKM program should be subjected to a major review every five years, and the CMP should be revised, as necessary. This process should involve input from State and Federal agencies and the public. Ex. B.02z at 17, CMP IP.</p> <p><u>See responses to proposed findings of fact 437 and 440 above. The Flores-Case Ohana continues to use the term “requirement” even though there is no basis for such.</u></p>
444	61	<p>As the CMP was submitted to and approved by the BLNR on April 9, 2009, the required five-year major review and revision of the CMP would be due April 2014. Ex. B.02a at 4 – 5</p>	<p><u>See response to proposed findings of fact 437 and 440 above.</u></p>
445	61	<p>The Applicant has failed to update and complete the five-year</p>	<p><u>See response to proposed findings of fact 437</u></p>

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		major review and revision of the CMP as required and stipulated in this plan. Ex. B.02a at 5.	and 440 above.
446	61	Mr. Lemmo testified that the Applicant has not submitted the required five-year major evaluation update of the CMP. Tr. 2/27/17, V.41 at 236, 242.	<u>See response to proposed findings of fact 437 and 440 above.</u>
447	61	The 2015 Annual Report submitted by UHH to BLNR reaffirms that the required CMP five-year major review and revision is overdue and hasn't been completed yet as noted in comments for Management Action MBEU-2: "Five-year CMP revision interval is 2014. Revision process initiated by OMKM for eventual submission to BLNR." Ex. A-21 at 27. Ex. B.02h at 27.	<u>See response to proposed findings of fact 437 and 440 above.</u> The cited documents also reflect that a "[r]evision process [has been] initiated." Ex. A-21 at 27. Based on the evidence, including the annual reports submitted to BLNR, the CMP is clearly being used as "a guide for managing existing and future activities and uses, and to ensure ongoing protection of Mauna Kea's cultural and natural resources, many of which are unique." Ex. A-9 at iii. The intent of the CMP is being accomplished.
448	61	The most recent 2016 Annual Report submitted by UHH to BLNR further reaffirms that the required CMP five-year major review and revision is overdue and hasn't been completed yet. Ex. A-22 at 28 & 36.	<u>See response to proposed findings of fact 437, 440, and 447 above.</u>

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449	61	<p>The OCCL Staff Report, dated February 25, 2011, includes recommended condition No. 12 which states “The applicant [University of Hawai‘i at Hilo] will allow BLNR to name a BLNR representative to participate in the five-year management review process.” (quoting Ex. A-7 at 65. Tr. 2/28/17, V.42 at 51.</p> <p>Chairperson name a representative from the Department to work with TMT on their Management Plan updates.”)(emphasis in original). This condition does not concern the review of the CMP.</p> <p><u>See response to proposed finding of fact 449 above.</u></p>	
450	61	BLNR has not yet appointed a representative to participate in UHH’s five year management review process. Tr. 2/28/17, V.42 at 52.	

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451	61-62	<p>The CMP should also be updated with a major review and revision as the proposed TMT project was beyond the scope of the CMP as noted below:</p> <p>2.1.4 Issues and Concerns Beyond the Scope of the CMP</p> <p>Through the extensive community outreach that took place during the preparation of this CMP (see Section 4), it became clear that the community had a number of issues and concerns related to past and future activities on Mauna Kea and specifically within the UH Management Areas that were beyond the scope of this CMP. These issues and concerns are listed below and policy makers are urged to consider them in their broader decision making related to Mauna Kea.</p> <ul style="list-style-type: none"> • Termination of the State Lease between the University and the BLNR • Use of ceded lands for \$1 a year or nominal consideration • Subleases between the University and the observatories • Extension of the State lease beyond 2033 • Proposed new development on Mauna Kea, including the Thirty Meter Telescope (TMT) and Pan Starrs • Community benefit package with increased educational benefits • Guaranteed employment opportunities for Native Hawaiians and the people on the Island of Hawai‘i <p>Ex. B.28 at 2-3, CMP.</p> <p>Citation does not support proposition. The citation provided does not support the Flores-Case Ohana’s claim that the CMP “should” be updated because it found that the TMT Project was beyond its scope. “[T]he CMP manages resources.” Ex. A-9 at 7-55. It did not and was never meant to address “development plan issues related to future observatories.” <u>Id.</u> That is the purpose of the Design Review Process. See UH-TIO FOF ¶¶172-178. Rather, “[t]he role of the CMP in considering future land use is to guide the evaluation of proposed projects from the standpoint of potential impacts to cultural and natural resources, and to provide management actions that can be adopted by BLNR as special conditions in any CDUPs that it may issue.” <u>Id.</u> The Flores-Case Ohana does not cite to any authority that required or requires the CMP to address the TMT Project. The claim that the CMP needs to be updated because of the TMT Project is entirely specious.</p>
452	62	<p>The BLNR adopted the following Mauna Kea CMP sub-plans on March 25, 2010, <i>Cultural Resources Management Plan, Natural Resources Management Plan, Decommissioning Plan for the Mauna Kea Observatories, and Public Access Plan</i> for the UH Management Areas on Mauna Kea. Ex. R-1/B.30 at 2-3, CDDUA.</p> <p>Not in dispute, but see response to proposed finding of fact 420 above. Ex. B.30 was not received into evidence.</p>

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453	62	Mauna Kea CMP and sub-plans are the approved management documents for land use and activities in the UH Management Areas on Mauna Kea, including the TMT project. Ex. R-1/B.30 at 2-3, CDUA.	Not in dispute, but <u>see</u> response to proposed finding of fact 420 above. Ex. B.30 was not received into evidence.
454	62	The Mauna Kea CMP contained 103 management actions and associated reporting requirements that would govern the future of Mauna Kea. A condition of BLNR approval was that the University develop a <i>Project Development and Management Framework</i> and four resource sub-plans <i>Natural Resources Management Plan</i> ; <i>Cultural Resource Management Plan</i> ; <i>Public Access Plan</i> ; and <i>Decommissioning Plan</i> . Ex. R-7/B.70 at 8 - 9.	Not in dispute, but Ex. B.30 was not received into evidence.
455	62	The BLNR action also required the Applicant to submit an annual status report on the development of each sub plan and a status report on the development of each management action. Ex. R-7/B.70 at 8 .	Incomplete. The next sentence in that same paragraph on page 8 of Ex. R-7, states: “ <u>The OCCL believes that the University is in compliance with these requirements as of the writing of this report.</u> ” Id. (emphasis added). Ex. B.70 was not received into evidence.
456	62-63	The Applicant has failed to implement and complete several significant components of these management action plans identified in the following Tables in the CMP that required immediate implementation. Ex. B.02a at 5.	OMKM is in compliance with the CMP management actions. The following addresses the specific management actions identified by the Flores-Case Ohana in his proposed findings of fact. <u>See generally</u> Ex. A-22. Table 7-1. Management Actions: Native Hawaiian Cultural Resources (Ex. B.28 at 7-7 to 7-8) Table 7-3. Management Actions: Natural Resources (Ex. B.28 at 7-15) Table 7-4. Management Actions: Education and Outreach (Ex. B.28 at 7-23) Table 7-5. Management Actions: Astronomical Resources (Ex. B.28 at 7-28)

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		<p>Table 7-9. Management Actions: Activities and Uses (Ex. B.28 at 7-34 to 7-35)</p> <p>Table 7-10. Management Actions: Permitting and Enforcement (Ex. B.28 at 7-41)</p> <p>Table 7-11. Management Actions: Infrastructure and Maintenance (Ex. B.28 at 7-45)</p> <p>Table 7-12. Management Actions: Construction Guidelines (Ex. B.28 at 7-49)</p> <p>Table 7-13. Management Actions: Site Recycling, Decommissioning, Demolition and Restoration (Ex. B.28 at 7-54)</p> <p>Table 7-14. Management Actions: Considering Future Land Use (Ex. B.28 at 7-57)</p> <p>Table 7-15. Management Actions: Operations and Implementation (Ex. B.28 at 7-60)</p> <p>Table 7-16. Management Actions: Monitoring, Evaluation and Updates (Ex. B.28 at 7-64)</p>	<p>identified as “Short-term” – i.e., 4-6 years. SHPD has not yet prepared the application. See Ex. A-22 at 14 of 37. Consequently, OMKM’s support of the application remains an ongoing management action and will continue to be an ongoing management action until SHPD submits the application. The AIS (B.02y-1 and B.02y-2) and the Burial Treatment Plan (A-138) are evidence of OMKM’s proactive efforts to further its knowledge in support of any potential application should SHPD choose to proceed. OMKM is in compliance with CR-2.</p> <p><u>CR-4</u></p> <p>CR-4 states that OMKM is to establish a process for ongoing collection of information on traditional, contemporary and customary cultural practices. The initiation of this management action was identified as “Short-term” – i.e., 4-6 years. See Ex. A-16 at B-3. In 2016, regarding this management action, OMKM reported that its “staff met with [SHPD] staff in 2015 to discuss practices at various sites. Discussions with Kahu Ku Mauna Council to craft a culturally appropriate process continue.” Ex. A-22 at 15 of 37. As part of its general duties, Kahu Ku Mauna also reviews and advises on cultural, spiritual, and historic values. See Ex. A-144 at 6. Consequently, the management action, though</p>

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			<p>not complete, has been initiated within the short-term goal set forth in the CMP. OMKM is in compliance with CR-4.</p> <p>NR-3</p> <p>NR-3 states that OMKM is to maintain native plant and animal populations. The initiation of this management action was identified as “Mid and Long-term” – i.e., 7-10+ years. <u>See Ex. A-16 at B-4.</u> In 2016, regarding this management action, OMKM reported that “[n]on-native plants and arthropods are monitored. The Division of Forestry and Wildlife is completing a circum-Maunakea fence and ungulate removal from Palila critical habitat. OMKM staff investigated mamane leaf curl frequency at Hale Pokahu (plant disease response) in coordination with UHH scientists.” Ex. A-22 at 17 of 37; <u>see also</u> Ex. A-22 at 18 of 37 (comments to NR-9 demonstrate considerable work being done to maintain native plant populations); <u>id.</u> at 19 of 37 (comments to NR-15, NR-16, and NR-18 demonstrated additional work being done to maintain native plant and animal populations). OMKM has also been doing extensive work on maintaining the wekiu bug. <u>See Ex. A-17 at 4 of 7; see also infra</u> discussion regarding NR-12.</p> <p>Consequently, there are ongoing efforts to</p>

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			<p>maintain native plant and animal populations. By its plain language, this is a management action that is ongoing. OMKM will continue to strive to maintain native plant and animal populations in its ongoing management of Mauna Kea. OMKM is in compliance with NR-3.</p> <p><u>NR-4</u></p> <p>NR-4 states that OMKM is to minimize barriers to species migration to help maintain populations and protect ecosystem processes and development. The initiation of this management action was identified as “Mid and Long-term” – i.e., 7-10+ years. See Ex. A-16 at B-4. In 2016, regarding this management action, OMKM reported that it “coordinates with Forest Reserve, Natural Area Reserve, and [DLNR] technical staff to identify issues, craft appropriate responses, and investigate concerns regarding ecosystems and flora and fauna populations.” Ex. A-22 at 17 of 37.</p> <p>Consequently, there are ongoing efforts to address this management action. By its plain language, this is a management action that is ongoing. OMKM will continue to strive to minimize barriers to species migration to help maintain populations and protect ecosystem processes and development in its ongoing management of Mauna Kea. OMKM is in</p>

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			<p>NR-12 states that OMKM is to create restoration plans and conduct habitat restoration activities, as needed. The initiation of said management action was identified as “As needed.” See Ex. A-16 at B-5. In 2016, regarding this management action, OMK reported that “[a] study of wekiu bug habitat restoration was initiated in 2015, and a study and mapping of wekiu bug habitat has been completed.” Ex. A-22 at 18 of 37.</p> <p>Kamehameha High School student Isreal Stillman conducted his senior legacy project in the Science & Natural Resources academy; repeating the vegetation inventory in Halepōhaku and building plant propagation benches and planting several hundred native plant seedlings. Ex. A-21 at 8 of 27. OMKM will continue to create restoration plans and conduct habitat restoration activities “as needed” in compliance with NR-12. OMKM is in compliance with NR-12.</p> <p>EO-4</p> <p>EO-4 states that OMKM is to develop and implement a signage plan to improve signage throughout the UH Management Areas</p>

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			<p>(interpretive, safety, rules, and regulations).</p> <p>The initiation of said management action was initially identified as “Immediate” – i.e., 1-3 years. Ex. A-16 at B-6. It was later “deferred to Short Term to accommodate the accrual of additional resource information.” Ex. A-17 at 5 of 15. In 2013, regarding this management action, OMKM reported that “[a] map showing the location of signs on UH’s managed lands [was] completed. New cultural and safety related signs are planned.” Ex. A-18 at 7 of 15. In 2016, OMKM reported that “[c]ultural and safety related signs have been installed” and “[a] draft sign plan in [sic] under review.” Ex. A-22 at 20 of 37. Consequently, certain components of this management action have been completed and others are ongoing.</p> <p>OMKM is in compliance with EO-4.</p> <p style="text-align: right;"><u>IM-14</u></p> <p>IM-14 states that OMKM is to encourage observatories to investigate options to reduce the use of hazardous materials in telescope operation. The initiation of said management action was identified as “Short-term” – i.e., 4-6 years. Ex. A-16 at B-10. In 2016, regarding this management action, OMKM identified said management action as ongoing and reported that “[w]ith the development of new technology, observatories are beginning to</p>

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			<p>reduce their need to use hazardous material. An example, is the TMT Observatory, which will not be using mercury.” Ex. A-22 at 25 of 37. The latter statement was confirmed during this CCH. <u>See</u> UH-TIO FOF ¶824 (confirming that no mercury will be used at the TMT Observatory, and no hazardous waste is anticipated to be generated at the TMT Observatory). By its plain language, this is a management action that is ongoing. OMKM will continue to encourage observatories to investigate options to reduce the use of hazardous materials in telescope operation.</p> <p>OMKM is in compliance with IM-14</p> <p style="text-align: center;"><u>FLU-2</u></p> <p>FLU-2 states that OMKM is to develop a map with land-use zones in the Astronomy Precinct based on updated inventories of cultural and natural resources, to delineate where future land use will not be allowed and areas where future land use will be allowed but will require compliance with prerequisite studies or analysis prior to approval of Conservation District Use Permit. The initiation of said management action was initially identified as “Immediate” – <u>i.e.</u>, 1-3 years, but was later revised to “Short term” – <u>i.e.</u>, 4-6 years – because “this task will require additional data gathered from baseline surveys of the resources.” Ex. A-17 at 12 of 15.</p>

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			<p>Those surveys are currently ongoing. Tr. 12/6/16 at 165:11-23. Moreover, in terms of astronomy development, Governor Ige has stated that the TMT Project site should be the last new site developed on Mauna Kea and that any future development occur on already existing sites. The University confirmed that the TMT Project is the last new area on Mauna Kea where a telescope will be build. UH-TIO FOF ¶154. Consequently, although it is not completed, OMKM has initiated FLU-2. OMKM is in compliance with FLU-2.</p> <p><u>OI-4</u></p> <p>OI-4 states that OMKM is to establish grievance procedures for OMKM, to address issues as they arise. The initiation of said management action was identified as “Short-term” – i.e., 4-6 years. In 2016, regarding this management action, OMKM reported that it “is currently designing a grievance process.” Ex. A-22 at 28 of 37. Kahu Ku Mauna may assist in dispute resolution. Ex. A-144 at 6. Consequently, although it is not completed, OMKM has initiated OI-4. OMKM is in compliance with OI-4.</p> <p><u>MEU-2</u></p> <p>MEU-2 states that OMKM is to conduct regular</p>

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			<p>updates for the CMP that reflect outcomes of the evaluation process, and that incorporate new information about the resources. The initiation of said management action was identified as “Short-term” – i.e., 4-6 years - and “As needed.” Ex. A-16 at B-12. Starting in 2010, and for every year since then, OMKM has provided annual progress reports to BLNR regarding the implementation of the CMP’s management actions. See Exs. A-16 through A-22. In 2016, OMKM reported in its annual progress report that “[m]ost management actions have either been implemented or are in progress. Many actions are considered ‘ongoing’ as they are long term, continuous land management responsibilities.” Ex. A-22 at 2 of 37; see UH-TIO FOF ¶¶189-190. OMKM is in compliance with MEU-2.</p> <p>See response to proposed finding of fact 456 above.</p>
457	63	OMKM was tasked with overseeing and implementing the management actions identified in the CMP Implementation Plan (2010). However, there were several significant management actions that were originally listed in the 2009 timeframe as Immediate (1-3 years) and Short-term (4-6 years) that have <u>not</u> yet been implemented and accomplished. Ex.B.02a at 6.	

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458	63-64	In the table below is a sampling of some of the significant incomplete CMP management actions. Ex. B.02a at 6 - 7.	See response to proposed finding of fact 456 above.

CMP	Management Actions	Implementation Schedule
CR-2	Support application for designation of the summit region of Mauna Kea as a Traditional Cultural Property, per the National Historic Preservation Act of 1966, as amended, 16 U.S.C. 470 et seq. in consultation with the larger community.	Short-term
CR-4	Establish a process for ongoing collection of information on traditional, contemporary, and customary cultural practices.	Short-term
NR-3	Maintain native plant and animal populations and biological diversity.	Mid and Long-term
NR-4	Minimize barriers to species migration to help maintain populations and protect ecosystem processes and development.	Mid and Long-term
NR-12	Minimize barriers to species migration to help maintain populations and protect ecosystem processes and development.	Mid and Long-term
EO-4	Develop and implement a signage plan to improve signage throughout the UH Management Areas (interpretive, safety, rules and regulations).	Short Term*
IM-14	Encourage observatories to investigate options to reduce the use of hazardous materials in telescope operations.	Short Term
FLU-2	Develop a map with land-use zones in the Astronomy Precinct based on updated	Short Term*

[*Comment: This was originally classified as Immediate implementation but has been deferred to Short Term to accommodate the accrual of additional resource information.]

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		<p>inventories of cultural and natural resources, to delineate areas where future land use will not be allowed and areas where future land use will be allowed but will require compliance with prerequisite studies or analysis prior to approval of Conservation District Use Permit.</p> <p>[*Comment: This was originally listed for Immediate implementation. However, this task will require additional data gathered from baseline surveys of the resources.]</p>	
OI-4		Establish grievance procedures for OMKM, to address issues as they arise.	Short-term
MEU-2		Conduct regular updates of the CMP that reflect outcomes of the evaluation process, and that incorporate new information about the resources.	Short-term
459	64	OMKM changed their reporting methods assigned to the progress status definitions. This resulted in having the existing CMP status plans being submitted annually to BLNR for review without any definitive timeframes and dates listed for the implementation of these management actions that in many cases are considered crucial in the protection of Mauna Kea's natural and cultural resources. Ex. B.02a at 6.	Inaccurate/False. Mischaracterization. See UH-TIO FOF ¶190.
460	64	For reporting purposes in 2010 and 2011, each management action was initially assigned one of four progress status designations: As Needed, Short to Long Term, Ongoing, or Completed . For the 2012 report, the Ongoing category was further divided into two groups, Ongoing and In Progress , to distinguish management actions that are part of OMKM's regular responsibilities and those that require specialized implementation. For the 2014 report, based	See UH-TIO FOF ¶190.

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		<p>on feedback from the Office of the Auditor, State of Hawaii, OMKM again refined these definitions. Ongoing refers to activities that have established processes in place and are performed as part of OMKM's daily responsibilities. For example, processes for reporting disturbances to historic properties are established while actual reporting is Ongoing as necessary. In Progress refers to actions that require specialized implementation such as the development of policies or hiring consultants and researchers, and while efforts are In Progress the action or process is not yet complete. Ex. A-22 at 1 – 2.</p>	<p>Misleading. Partial quotation. Presented out of context. The Flores-Case Ohana only cites to the first sentence of the first full paragraph on page 1-6 of Ex. R-1. The full paragraph states:</p> <p>“Management Action FLU-1 in the recently adopted CMP states that future facility planning should follow the guidelines presented in the University of Hawai‘i <i>Mauna Kea Science Reserve Master Plan</i>, referred to as the <i>2000 Master Plan</i>. Ex. R-1/B.30 at 1-6, CDDA.</p> <p>“Management Action FLU-1 in the recently adopted CMP states that future facility planning should follow the guidelines presented in the University of Hawai‘i Mauna Kea Science Reserve Master Plan, referred to as the 2000 Master Plan (University of Hawai‘i, 2000). The 2000 Master Plan limits future development to the Astronomy Precinct and identifies Areas A through F within it as preferred sites (Figure 1.3). It also lists criteria to assist in the selection of an appropriate site for a ground-based telescope with a primary mirror of 25 to 50 meters in diameter (generically referred to as a “Next Generation Large Telescope”, or NGLT in the 2000 Master Plan). <u>The 2000 Master Plan identifies Area E as the preferred</u></p>
461	64		

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		<u>location for an NGLT.5 Area E is located approximately 1/2-mile northwest of the nine existing optical/infrared observatories located near the summit.”</u>	<p>(Emphasis added).</p> <p>The TMT Project is consistent with the 2000 Master Plan and FLU-1 because it is being sited at the exact location that the 2000 Master Plan stipulates a NGLT should be located.</p>
			<p>The TMT Project also has gone through the Design Review process which ensures that future projects in the MKSR conform to and implement the concepts, themes, and development standards and guidelines set forth in the 2000 Master Plan. See UH-TIO FOF ¶¶171-178.</p>
462	64	FLU-1 in the CMP stipulates the management action to be taken by UH: “Follow design guidelines presented in the 2000 Master Plan.” Ex. B.28 at 7-57, CMP	<p><u>See response to proposed finding of fact 461 above.</u></p>
463	64-65	Additional considerations for FLU-1. <u>Master Plan Design Guidelines:</u> Section XI of the 2000 Master Plan contains a set of design guidelines to direct development of renovations of existing facilities and new construction in a way that integrates the facility into the landscape (Group 70 International 2000). General goals address: facility siting; scale; heights and widths; colors; surfaces; textures and materials; parking; roadway and utility development; roofs; fences, walls and barriers; and signage.	<p><u>See response to proposed finding of fact 461 above.</u></p>

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464	65	Ex. B.28 at 7-57, CMP. FLU-2 in the CMP stipulates the management action to be taken by UH: “Develop a map with land-use zones in the Astronomy Precinct based on updated inventories of cultural and natural resources, to delineate areas where future land use will not be allowed and areas where future land use will be allowed but will require compliance with prerequisite studies or analysis prior to approval of Conservation District Use Permit.	<u>See responses to proposed findings of fact 456 and 461 above.</u>
465	65	Additional considerations for FLU-2. Land use zones: Any potential future observatories will be located inside the Astronomy Precinct. The goal of this process is to refine telescope siting areas defined in the 2000 Master Plan based on updated cultural and natural resource information (see Section 7.1.1 and Section 7.1.2). Land use zones will be developed that will delineate areas where future land use will not be allowed and areas where future land use will be allowed, but where compliance with prerequisite studies or analyses prior to approval of a CDUP, will be required. When assessing proposed infrastructure expansion, additional consideration will be given to the location of current infrastructure and previously disturbed areas (see Section 7.3.1). New land uses should be located close to existing infrastructure or previously disturbed areas, to reduce impacts on undisturbed areas and to minimize unnecessary damage to geological features. As stated in the 2000 Master Plan, all major undeveloped cinder cones and their intervening areas will be protected from future development by astronomical or other interests. These include the following pu'u: Ala, Hoaka, Kūkāhau'ula, Līlīnoe, Māhoe, Mākanaka, Pōepoe, Poli'ahu, and UJa. Ex. B.28 at 7-58, CMP.	<u>See responses to proposed findings of fact 456 and 461 above.</u> Misleading. Presented out of context. The CMP does not mandate
466	65	As stipulated in FLU-2, the Applicant has failed to complete a map with land-use zones based on updated inventories of cultural and natural resources <u>prior to proposing new development such as the</u>	<u>See responses to proposed findings of fact 456 and 461 above.</u>

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		TMT project. Ex. B.02a at 5 – 6.	completion of management actions prior to proposal of new development <u>See</u> responses to proposed findings of fact 456, 461, and 466 above.
467	65	The 2015 Annual Report submitted by UHH to BLNR reaffirms that FLU-2 hasn't been completed yet as noted in comments: "This was originally listed for Immediate implementation. However, this task will require additional data gathered from baseline surveys of the resources." Ex. B.02h at 26.	See responses to proposed findings of fact 456, 461 and 466 above
468	65	The most recent 2016 Annual Report submitted by UHH to BLNR further reaffirms that FLU-2 hasn't been completed yet. Ex. A-22 at 27 & 36.	See responses to proposed findings of fact 456, 461 and 466 above
469	66	Mr. Lemmo testified that a number of entities are responsible for ensuring compliance with the implementation of the CMP management actions including the BLNR, UH BOR, UH IfA, OMKM, Maunakea Management Board, and OCCL-DLNR. Tr. 3/22/17 vol. 41 at 237.	Citation does not support the proposition. There is no transcript from 3/22/17.
470	66	UH has submitted Annual Reports to BLNR since 2010 through 2016 regarding the status of the implementation of the Comprehensive Management Plan. Ex. A-16, A-17, A-18, A-19, A-20, A-21, A-22.	Not in dispute.
471	66	The purpose of the Annual Reports as identified in the 2009 Mauna Kea Comprehensive Management Plan, management action MEU-1 states: OMKM shall produce an annual progress report on the management goals, objectives, and actions for the year and what progress was made towards meeting them. "This Progress Report is not intended to be a status report on the resources in the UH Management Areas; rather, it is meant to inform management and stakeholders of the progress of the program and direction it is to take in the future." Ex. A-22 at 1.	Not in dispute.
472	66	Mr. Lemmo testified that OCCL receives the annual reports from the Office of Maunakea Management and reviews them to understand the management actions UH undertook that year. Tr.	Not in dispute.

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473	66	Mr. Lemmo testified that OCCL presents the annual report to the BLNR as a nonaction item. Tr. 2/27/17, V.41 at 238.	Not in dispute.
474	66	In the CMP Cultural Resources Management Plan (“CRMP”), several management actions are identified for the purpose of protecting cultural resources. Ex. A-11 at 5.1 to 5.8.	Not in dispute.
475	66	Once such management action item is identified with a priority of High to Medium scheduled to be completed in Year 1 is listed as such: “Develop a list of individuals, families, organizations who should be consulted when individual development projects are being proposed or when other issues arise that may be a concern”. Ex. A-11 Table 5.1 at 5.2.	Not in dispute.
476	66-67	Ms. Stephanie Nagata, OMKM Director, testified that the OMKM has not yet finalized such a list of individuals, families, organizations, or Native Hawaiian cultural practitioner despite this action item being identified with the priority of High to Medium. Tr. 12/12/16 vol 18 at 120 – 127.	Ms. Nagata testified that this management action item is an on-going process. See Tr. 12/12/16 at 124:9-11. Though it has not been finalized, Ms. Nagata testified that there have been discussions with Kahu Ku Manu to develop a list and also attempts to solicit individuals and families of lineal and cultural descent. See id. at 121:13-21. Consequently, OMKM is following and using the guidelines and framework set forth in the CMP.
			More importantly, the credible, substantial evidence presented in this case demonstrates that significant and appropriate consultation occurred with respect to the TMT Project. See e.g., UH-TIO FOF ¶¶210-237. Mr. Flores himself was contacted for consultation on the CIA for the TMT FEIS, although he did not respond or otherwise participate in the process.

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			<u>See UH-TIO FOF ¶216; Tr. 1/30/17 at 222:3-22.</u>
477	67	Ms. Nagata also disclosed that several other such CMP CRMP management actions have not yet been completed or implemented by OMKM despite this action item being identified with the priority of High to Medium and with a scheduled completion date of Year 1 or 2. Tr. 12/12/16 vol 18 at 116 – 127.	<p>Management action no. 7 states: “Develop guidelines regarding the use of ancient shrines and protocols for offerings.” Ex. A-11 at 5-2.</p> <p>Ms. Nagata testified that a policy regarding the use of ancient shrines has been developed by Kahu Ku Mauna and approved by the Mauna Kea Management Board. Tr. 12/12/16 at 117:2-16. Protocols for offerings have been developed and taken before the MKMB; they just have not been formally approved yet. See <u>id.</u> at 117:17-119:2. Consequently, significant efforts have been made to develop these guidelines.</p> <p>There are certain management actions that may not have been completed as quickly as OMKM would like. This does not mean, however, that OMKM’s management of Mauna Kea is inconsistent with the CMP. To the contrary, the evidence demonstrated that OMKM has been following and using the guidelines and framework set forth in the CMP in its management of Mauna Kea.</p>
478	67	OMKM has not finalized rules regarding the construction of new Hawaiian cultural features. Tr. 11/16/16, V.9 at 151	Mr. Ishibashi testified that there have been discussions, including a couple community meetings, concerning administrative rules regarding construction of new Hawaiian

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			cultural features, scattering of cremated human remains, and the building of ahu or stacking of rocks. See Tr. 11/16/16 at 151:12-153:2. He testified that one of the reasons that these administrative rules have not been finalized is because many of the individuals involved in this CCH would also likely want to participate in the administrative rules process. See <i>id.</i>
479	67	OMK M has not finalized rules regarding the scattering of cremated human remains. Tr. 11/16/16, V.9 at 151	<u>See response to proposed finding of fact 478 above.</u>
480	67	OMK M has not finalized rules regarding the building of ahu or stacking rocks. Tr. 11/16/16, V.9 at 151	<u>See response to proposed finding of fact 478 above.</u>
481	67	Mr. Ishibashi was initially hired as the cultural advisor in Jun 2012 in which he was responsible to monitor "cultural events on the mountain" Tr. 11/16/16, V.9 at 135:22 - 136:7	Mr. Ishibashi was initially hired by OMKM to advise on cultural matters. Mr. Ishibashi is a cultural practitioner and has genealogical ties to Poliahu which is associated with the summit of Mauna Kea. Mr. Ishibashi was raised in the old ways. He was taken to Mauna Kea at the age of six and learned about his genealogy and family ties to Mauna Kea. He considers himself to be a cultural practitioner since the age of 6 when he and his family brought ho'okupu to Poliahu. This was about the time they built a telescope on Poliahu. As descendants of Poi'ahu, Mauna Kea is a special place to Mr. Ishibashi and his family. They would visit their aumakua every year. Mr. Ishibashi visits his aumakua whenever he can. WDT Ishibashi at 1; Tr. 11/16/16 at 135:9-136:7; 139:4-140:10.
			Mr. Ishibashi was later hired as a permanent

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			employee in the capacity of Senior Advisor, to assist OMKM with construction oversight because of his experience in construction with the unions. Mr. Ishibashi also provides OMKM with advice on cultural matters, being not only someone with genealogical ties and aumakua on Poliahu on Mauna Kea but also a cultural practitioner on Mauna Kea, having learned by the old ways since he was six years old. WDT Ishibashi at 1; Tr. 11/16/16 at 135:9-18; 139: 4 – 140: 10.
482	67	Mr. Ishibashi stated that though he is no longer the cultural advisor, that he continues to advise OMKM on cultural issues Tr. 11/16/16, V.9 at 138:2-14	<u>See</u> response to proposed finding of fact 481 above.
483	67	Mr. Ishibashi has been the senior advisor at OMKM, since 2013. Tr. 11/16/16, V.9 at 110.	Mischaracterization. Mr. Ishibashi testified that he now facilitates recommendations and advice that is received from Kahu Ku Mauna. <u>See</u> Tr. 11/16/16 at 138:8-14.
484	67	Mr. Ishibashi is not the cultural officer for OMKM. Tr. 11/16/16, V.9 at 135.	<u>See</u> response to proposed finding of fact 481 above.
485	67	Mr. Ishibashi stated that his background and forte was "construction and renovating, improving facilities on the summit region. Tr. 11/16/16, V.9 at 137.	<u>See</u> response to proposed finding of fact 481 above.
486	67	Mr. Ishibashi stated that in his role as Senior Advisor he does "monitoring the construction renovations and cultural sites on the mauna" Tr. 11/16/16, V.9 at 141.	<u>See</u> response to proposed finding of fact 481 above.
487	67	Mr. Ishibashi defined the role of Senior Advisor as advising OMKM on "whatever issues arising to renovation or whatever permitting, ensuring that the construction is whatever permitting,	<u>See</u> response to proposed finding of fact 481 above.

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			ensuring that the construction is following the proper procedures on the best managing practices during their term of the contract or repairs or whatever they got to do." Tr. 11/16/16, V.9 at 137 – 138.
488	68	In the archaeological monitoring report for geotechnical boring at the proposed TMT site, it states that "The two upright stones were later dislodged by OMKM staff". Ex. B.02i at 12.	Not in dispute to the extent the document speaks for itself.
489	68	Mr. Ishibashi testified that he was the OMKM staff person identified in this monitoring report who was involved with this incident. Tr. 11/16/16 vol. 9 at 172.	Mr. Ishibashi stated that he only took one upright down, not two. Mr. Ishibashi's action was consistent with a policy identified in CR-5, from the 2013 annual report to BLNR. This policy was reviewed and approved by Kahu Ku Mauna in 2012, and is under re-evaluation. A-19 at 5, Appendix A at 4; A-22 at 9; Ex. L-18. Properties that are recent, that is, less than 50 years in age are not protected by HRS 6e, historic Preservation.
			Moreover, HAR 13-5-6 provides that "[n]o land use(s) shall be conducted in the conservation district unless a permit or approval is first obtained from the department or board." HAR 13-5-2 defines "land use" to include "[t]he placement or erection of any solid material on land if that material remains on the land more than thirty days, or which causes a permanent change in the land area on which it occurs" and/or "[t]he construction, reconstruction, demolition, or alteration of any structure, building or facility on land." The upright was an unpermitted structure.
490	68	Mr. Ishibashi testified that he had intentionally knocked down an	See response to proposed finding of fact 489

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		upright stone associated with Native Hawaiian cultural practices that was near the northern boundary of the proposed TMT site on the northern plateau. Tr. 11/16/16 vol 9 at 162-175.	above.
491	68	Mr. Ishibashi testified that he did not consult with Kahu Ku Mauna prior to taking action to knock down an upright stone associated with Native Hawaiian cultural practices. Tr. 11/16/16 vol 9 at 164-165.	<u>See response to proposed finding of fact 489 above.</u> Mr. Ishibashi did not need to consult with Kahu Ku Mauna on new sites. In 2012 (Ex. A-19 at 5, Appendix A at 4) and re-evaluated in 2016, Kahu Ku Mauna approved a draft regarding the appropriateness of the construction of new cultural features and new ones built without permission should be removed. Ex. L-18 at 9.
492	68	Mr. Ishibashi testimony verified that he is not very familiar with the rules and policies pertaining to the protection of Native Hawaiian cultural practices and resources. Tr.11/16/16 vol 9 at 158 – 166.	Inaccurate/False. Citation does not support the proposition.
493	68	Mr. Ishibashi testified that Mauna Kea rangers remove ho'okupu and items left on ahu even though they do not have the authority to do so. Tr. 11/16/16, V.9 at 162.	Misleading. Presented out of context. Mr. Ishibashi testified that Mauna Kea rangers “clean ho’okupus” as part of their kuleana to “maintain[] and clean[]” Mauna Kea. Tr. 11/16/16 at 162:15-21. Indeed, Mr. Ishibashi testified how, at times, ho’okupu will be “piled up . . . attracting bugs.” <u>Id.</u> at 161:13-19; <u>see also</u> Tr. 12/6/16 at 100:24-101:15 (Klasner provided an example of a coconut with wasps on an ahu – an “immediate health and safety concern”; <u>see also</u> General Lease, Ex. B.17f at 3, ¶2 (“The Lessee shall keep the demised premises and improvements in a clean, sanitary, and orderly condition); Ex. A-22 at 15 of 37 (noting that in 2012 Kahu Ku Mauna reviewed

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			and approved draft policy guidelines regarding the culturally appropriate placement and removal of offerings).
494	68	Mr. Ishibashi states that all employees working on the mauna must participate in a cultural/natural resource orientation	Not in dispute.
495	68	Mr. Ishibashi states that there is no test at the end of the cultural training to determine if they've understood the information presented; that they need only attend the training. Tr. 11/16/16, V.9 at 148 – 149. The CMP noted the need for a cultural orientation video for visitors to Mauna Kea. See Ex. A-9 at 7-20. “Stakeholder referred to orientations similar to those provided at USS Arizona, Hanauma Bay, and Kaho’olawe.” Id. Competency tests after the orientation were not raised in the CMP. Id.	Misrepresentation. Mr. Ishibashi testified that attendees need to attend the orientation; they do not have to take a test. Mr. Ishibashi did not state the remaining parts of this finding of fact. See Tr. 11/16/16 at 147:23-148:22.
496	68	Mr. Nees was working on various projects contracted by OMKM through PCSI since 2005 as either a crew member, field supervisor, or field director. Tr. 4/3/17 vol. 12 at 69.	Citation does not support the proposition. There is no transcript from 4/3/17.
497	68	Mr. Nees stated that he never attended an orientation or training by OMKM and was not aware of his colleagues attending any as well. Tr. 4/3/17 vol. 12 at 70.	The orientation began in 2013. There is no evidence that Mr. Nees has worked on Mauna Kea after the orientation began in 2013. Since 2013, 1,537 people have attended the orientation. See UH-TIO FOF ¶325.
498	69	Mr. Nees stated that he never attended an orientation or training regarding Native Hawaiian customary and traditional practices on	See response to proposed finding of fact 496 above.

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499	69	Mauna Kea. Tr. 4/3/17 vol. 12 at 70. It remains undisputed that the cumulative impacts on cultural, archaeological, historic, and geologic resources on Mauna Kea has been substantial, significant, and adverse. Ex. R-3 Sect 3.16.6 at 3-243.	<p>Mischaracterization. The FEIS provides that “[f]rom a cumulative perspective, the impact of past, present, and the Project together with other reasonable foreseeable future actions on cultural, archaeological, and historic resources is substantial, significant, and adverse. The cumulative impact to geologic resources in the astronomy precinct has been substantial, significant, and adverse.” Ex. R-3 at 3-243.</p> <p>The FEIS also provides that “[i]n general, the Project will add a limited increment to the level of cumulative impact, but would not tip the balance of any specific cumulative impact from a less than significant level to a significant level.” <u>Id.</u></p> <p>The same section from the FEIS also provides that “[t]he cumulative socioeconomic impact [of the TMT Project] is substantial and beneficial.” <u>Id.</u></p> <p>The Hearing Officer and BLNR are not bound by the findings in the FEIS. See <u>Kilakila ‘O Haleakala v. Bd. of Land and Natural Resources</u>, 138 Hawai‘i 383, 402, 382 P.3d 195, 214 (2016). “Rather, an environmental impact statement is ‘merely an informational document[,]’ and its findings neither presume approval nor denial of a conservation district use application.” <u>Id.</u></p>

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[499a] ¹	69	The BLNR allowed the TMT Observatory Corporation/TIO to take possession of said public trust lands and commence with construction activities including grading, excavation, and geotechnical boring on the proposed site prior to consenting to a sublease for this area. Ex. B.02e; Ex. B.02i.	Misleading. Presented out of context. Mr. Sanders testified that a right of entry agreement was entered into with UHH and a grading permit was also obtained. See Tr. 1/3/17 at 27:2-7; 27:22-28:1. Moreover, archaeological monitors were present during all ground disturbing activity and observed all the material excavated or removed during ground searching. See Tr. 1/20/16 at 78:22-79:6.
[499b]	69	These activities, between August and October 2013, resulted in irreparable harm and damage to this unique and pristine geological and cultural landscape.	UHH/TIO dispute that the public trust doctrine applies to the TMT Project. See UH-TIO FOF ¶¶ 1001-1014; UH-TIO COL ¶¶ 295-323.
[499c]	69	Mr. Sanders affirmed that TMT conducted geotechnical studies at the TMT site in 2013, including drilling cores of material at load bearing spots and grading on the jeep trail for the drilling rig.	Inaccurate/False. The Flores-Case Ohana does not present any evidence to support this proposed finding of fact. The subject geotechnical boring occurred in the Astronomy Precinct, which is, by Mr. Flores' own words, "substantially developed." Tr. 1/30/17 at 234:5-8. There is also no evidence that the area of the geotechnical boring constituted unique and pristine geological and/or cultural landscape.

¹ The Flores-Case Ohana failed to number certain proposed findings of fact. For ease of reference, these proposed findings of fact are nevertheless numbered in this response and identified by brackets around the missing number.

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[499d]	69	The BLNR issued a consent to sublease under General Lease No. S-4191 to the TMT International Observatory LLC over eight months later on June 27, 2014. Exhibit B.02f.	Not in dispute.
[499e]	69	The consent to the sublease for the proposed TMT project was appealed in the Third Circuit Environmental Court (Civil No. 14-1-324). It was later remanded back to BLNR as noted in the Order for Remand. Ex. B.02 at 4; B.02g.	Not in dispute.
[499f]	69	It's very evident that OCCL-DLNR staff did not take a 'hard look' at significant aspects of CDUA HA-3568 in the initial submittal. Instead, information was cut and pasted in their entirely directly from the Application's submittals and included in the OCCL Staff Report that was submitted to Board members for their consideration on February 25, 2011. Ex. B.35; R-7/B.70.	<p>Inaccurate/False. There is no evidence, and the Flores-Case Ohana does not cite to any, to support this proposed finding of fact.</p> <p>Moreover, the Hearing Officer and therefore BLNR clearly has taken and is taking a hard look at the CDUA given the 44 days of hearing testimony and the hundreds of exhibits admitted into evidence.</p> <p>Exs. B.35 and B. 70 were not received into evidence.</p>
[499g]	70		<p>The requirement for BLNR/DLNR to fulfill their statutory and constitutional obligations under <i>Ka Pa‘akai o Ka ‘Aina v. Land Use Comm’n State of Hawai‘i</i>, 94 Hawai‘i 37, 7 P.3d 1068 (2000) has been brought directly to the attention of BLNR/DLNR since the first contested case hearing for CDUA HA-3568 as well as at subsequent BLNR meetings through both oral and written testimony regarding the Mauna Kea Master Lease and TMT sublease. In addition, this matter was one again brought to the attention of BLNR/DLNR in the agency appeal Civil No. 14-1-324, <i>E. Kalani Flores v. Board of Land and Natural Resources, et al.</i>, as noted in those documents and briefs filed in that case. Ex. B.02a at</p> <p>The Flores-Case Ohana’s reading of <u>Ka Pa‘akai</u> is simply wrong. <u>Ka Pa‘akai</u> does not require that a <u>Ka Pa‘akai</u> analysis be performed by a state agency before a contested case hearing. To the contrary, a <u>Ka Pa‘akai</u> analysis can be done within the context of a contested case hearing, as was done here.</p> <p>In <u>Ka Pa‘akai</u>, the Hawai‘i Supreme Court provided an analytical framework “to effectuate the State’s obligation to protect native Hawaiian</p>

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3, Flores WDT.		<p>customary and traditional practices while reasonably accommodating competing private interests[.]” <u>Id.</u> at 46-47, 7 P.3d at 1083-84. “In order to fulfill its duty to preserve and protect customary and traditional native Hawaiian rights to the extent feasible[,]” a state agency must, at a minimum, “<u>make specific findings and conclusions</u> as to (1) the identity and scope of “valued cultural, historical, or natural resources in the [application] area, including the extent to which traditional and customary native Hawaiian rights are exercised in the [application] area; (2) the extent to which those resources – including traditional and customary native Hawaiian rights – will be affected or impaired by the proposed action; and (3) the feasible action, if any, to be taken by the [agency] to reasonably protect native Hawaiian rights if they are found to exist.” <u>Id.</u> at 47, 7 P.3d at 1084 (footnotes omitted) (emphasis added); <u>see also UH-TIO COL ¶¶10-12.</u></p> <p>Notably, as <u>Ka Pa’akai</u> itself clearly demonstrates, a <u>Ka Pa’akai</u> analysis can be conducted by an agency within the context of a contested case hearing. Indeed, in <u>Ka Pa’akai</u>, the Hawai‘i Supreme Court analyzed the Land Use Commission’s (“LUC”) findings of fact and conclusions of law following a contested case hearing. In its opinion, the Hawai‘i</p>	

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			<p>Supreme Court did not hold that a <u>Ka Pa‘akai</u> analysis should have been held before the contested case hearing. It also did not remand the matter back to the LUC to conduct a <u>Ka Pa‘akai</u> analysis before a contested case hearing. Instead, the Hawai‘i Supreme Court remanded the matter back to the LUC “<u>for the limited purpose of entering specific findings and conclusions, with further hearing if necessary</u>, [on the three factors noted above].” <u>Id.</u> at 53, 7 P.3d at 1090 (emphasis added).</p>
			<p>Based on the foregoing, and also as presented in the UH-TIO FOF/COL, the Flores-Case Ohana’s claim throughout this case that a <u>Ka Pa‘akai</u> analysis was required before the start of this CCH is simply wrong.</p>
500	70	BLNR/DLNR has not been able to produce a copy of any such independent <i>Ka Pa‘akai</i> analysis completed by this State agency despite a formal UIPA request to produce such a copy. Ex. B.02a at 3, Flores WDT; Ex. B.02c; Ex. B.02c-2.	<p><u>See response to proposed finding of fact [499g] above.</u></p>
501	70	UH reaffirms that the afore-mention <i>Ka Pa‘akai</i> analysis is required as referenced in their own management plan; “Further, this analysis should be applied before an action is approved and begun, and the analysis should be completed by the State and not delegated by the State to the entity applying for approval.” Ex. B.02a at 2 - 3, Flores WDT; Ex. B.42 at 2-29.	<p><u>See response to proposed finding of fact [499g] above.</u></p> <p>BLNR has not delegated the responsibility of conducting a <u>Ka Pa‘akai</u> analysis to UHH or TIO. Rather, BLNR and its Hearing Officer just completed 44 days of testimony where it heard from numerous practitioners and other interested parties (not to mention the hundreds,</p>

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			if not thousands, of pages just submitted by Petitioners and Opposing Intervenors in the form of proposed findings of fact and conclusions of law. Indeed, as recognized by Prof. Johnson, a witness that testified on behalf of Opposing Intervenor W. Freitas, this contested case hearing is part of the consultation process and he admires this process as a form of ongoing consultation. Tr. 2/16/17 at 88:10-16.
502	70	Mr. Lemmo testified that when preparing a staff report on a CDUP application, he informed his OCCL staff that “when you’re looking at the <i>Ka Paakai</i> analysis, that you can’t just take what the applicant says verbatim and cut and paste it and place it into your staff report,...and determine that that’s okay. I’ve told them that they need to take a look at the information that’s been presented to them. They need to think about whether they need to go and look at independent sources of information, and then to come up with, in their own words, whether they feel that there’s been adequate review or adequate representation of Native Hawaiian interests in the matter.” Tr. 2/27/17, V.41 at 253.	<u>See response to proposed finding of fact [499g] above.</u>
503	70	Mr. Lemmo affirmed that part of OCCL’s job under the Hawaii State Constitution is to take it upon themselves to protect Native Hawaiian rights, beliefs and values and not rely on the applicants to do so. Tr. 2/27/17, V.41 at 253.	<u>See responses to proposed findings of fact [499g] and 501 above.</u>
504	70	Mr. Lemmo affirmed that OCCL cannot rely solely on information from the applicant to determine whether or not Native Hawaiian values, interests, and beliefs have been assessed and considered and whether mitigation measures have been imposed that reduce impacts to those values and interests. Tr. 2/27/17, V.41 at 254.	<u>See responses to proposed findings of fact [499g] and 501 above.</u>

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505	70	Mr. Lemmo testified that OCCL did <u>not</u> conduct a cultural impact assessment for the lands of Mauna Kea. Tr. 2/27/17, V.41 at 253.	<u>See</u> responses to proposed findings of fact [499g] and 501 above.
506	71	Mr. Lemmo testified that, “If you’re asking me did I go out and do a cultural assessment, no, I did not. I do not have the resources to go and do a cultural assessments, nor the time.” Tr. 2/27/17, V.41 at 253.	<u>See</u> responses to proposed findings of fact [499g] and 501 above.
507	71	Mr. Lemmo testified further that they “don’t have the staffing, the resources, the time to go and take on… doing independent analyses of these things.” Tr. 2/27/17, V.41 at 254.	<u>See</u> responses to proposed findings of fact [499g] and 501 above.
508	71	Mr. Lemmo testified that OCCL did <u>not</u> contract anyone to conduct a cultural impact assessment for Mauna Kea. Tr. 2/27/17, V.41 at 254.	<u>See</u> responses to proposed findings of fact [499g] and 501 above.
509	71	The outdated CDUA HA-3568 inaccurately identifies the TMT project developer as such, “ On behalf of the TMT Observatory Corporation, the University of Hawai‘i is seeking a Conservation District Use Permit (CDUP) from the State of Hawai‘i Board of Land and Natural Resources (BLNR) that will allow the construction, operation, and eventual decommissioning of the Thirty Meter Telescope (TMT) Observatory within an area below the summit of Mauna Kea that is known as “Area E”.” (emphasis added) Ex. R-1/B.30 at 1-5, CDUA.	<p>The evolution from TMT Corporation to TIO was explained in detail in UH-TIO FOF ¶¶206-207 and respectfully should be adopted. Moreover, as explained in the UH-TIO FOF/COL, UHH, as the applicant of the CDUA, was not required to resubmit the CDUA, reapply, or otherwise amend the CDUA to reflect the creation of TIO or the change from TMT Corporation to TIO. See UH-TIO FOF ¶¶420-426. The Flores-Case Ohana does not cite to any legal authority that states otherwise.</p> <p>The TIO Sublease, Ex. B.02f, which was moved into evidence by the Flores-Case Ohana, UH-TIO FOF ¶209, clearly demonstrates that TIO is to be subject to the terms and conditions of the CDUP, if granted. <u>See id.</u> at 3, ¶4.</p>

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510	71	The outdated CDUA HA-3568 inaccurately states, “ The TMT Observatory Corporation is a private non-profit corporation that will be responsible for constructing the TMT project and for managing its operations. ” (emphasis added) Ex. R-1/B.30 at 1-5, CDUA.	<u>See response to proposed finding of fact 509 above.</u>
511	71	The outdated CDUA HA-3568 inaccurately states, “ The TMT project is currently a partnership among the TMT Observatory Corporation (TMT), the University of California (UC), the California Institute of Technology (Caltech) and the Association of Canadian Universities for Research in Astronomy (ACURA). The National Astronomical Observatory of Japan (NAOJ) is a collaborator and potential partner, and the National Astronomical Observatories of the Chinese Academy of Sciences (NAOC) and India’s Department of Science and Technology (DST) are observers and potential partners in the TMT project.” (emphasis added) Ex. R-1/B.30 at 1-5 – 1-6, CDUA.	<u>See response to proposed finding of fact 509 above.</u>
512	72	TMT Corporation was formed to manage initial planning, design, and development of the TMT Observatory to house a 30-meter primary mirror telescope. Ex. C-1 at 2.	<u>See response to proposed finding of fact 509 above.</u>
513	72	TIO witness, Mr. Fred Stone, joined the Thirty Meter Telescope Corporation in 2004 and served as chairman and vice-chairman until May 2014 when he became Executive Director of newly-formed TMT Observatory International, LLC (“TIO”). Ex. C-1 at 1.	<u>See response to proposed finding of fact 509 above.</u>
514	72	TIO was established to carry out the construction and operation phases of the TMT Project. Ex. C-1 at 1.	<u>See response to proposed finding of fact 509 above.</u>
515	72	The current Members of TIO are Caltech, UC, the National Institutes of Natural Science of Japan, the National Astronomical Observatories of the Chinese Academy of Sciences, the Canadian National Research Council and the Indian Department of Science and Technology. Ex. C-1 at 1.	<u>See response to proposed finding of fact 509 above.</u>
516	72	Major funding for the TMT project has been provided by the	<u>See response to proposed finding of fact 509</u>

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		Gordon & Betty Moore Foundation. Ex. C-1 at 1.	above. <u>See response to proposed finding of fact 509 above.</u>
517	72	Mr. Stone affirmed TIO was formed because the members of the TMT Observatory Corporation, a California corporation, would have been equal partners. However, there was a need to issue proportionate interest and shares in their votes regarding the TMT project. So instead, the TIO was formed as a LLC, a Delaware corporation. Tr. 12/19/16 vol 18 at 10-12.	<u>See response to proposed finding of fact 509 above.</u>
518	72	TIO is organized exclusively for exempt purposes under Section 501(c)(3) of the Internal Revenue Code. TIO may not carry out activities that are not permitted by Section 501 (c)(3) of the Code. Ex. C-1 at 2.	<u>See response to proposed finding of fact 509 above.</u>
519	72	In May 2014, TIO became official and as result the TMT project is now “owned” by the members of TIO and overseen by the Board of TIO. Tr. 12/19/16 vol 18 at 13.	<u>See response to proposed finding of fact 509 above.</u>
520	72	The TMT Observatory Corporation turned over what it had developed as well as transferred its employees to TIO. Tr. 12/19/16 vol 18 at 10-12	<u>See response to proposed finding of fact 509 above.</u>
521	72	TIO and its members seek to develop, design, finance, construct, commission, operate and decommission a next generation segmented mirror telescope and associated observatory on Mauna Kea. Ex. C-1 at 2.	<u>See response to proposed finding of fact 509 above.</u>
522	72-73	TIO witness, Mr. Gary Sanders, TMT Project Manager, affirmed that the TMT Observatory Corporation transitioned into the TIO whose partners pledged in writing their contributions to TIO, both cash contribution and in-kind contributions. Tr. 01/4/2017, V. 21 at 76-77.	<u>See response to proposed finding of fact 509 above.</u>
523	73	In 2004, Dr. Sanders became the Project Manager for the Thirty Meter Telescope for the California Institute of Technology and the University of California, which formed the TMT Observatory Corporation (TMT Corporation). He has been with the TMT Corporation since 2004 and since May 2014 with the TIO. He is	<u>See response to proposed finding of fact 509 above.</u>

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		responsible for managing the design and construction of the Thirty Meter Telescope. The TMT International Observatory (TIO) was formed on May 6, 2014 and he reports to its board of directors. Ex. C-2 at 1.	
524	73	According to Mr. Sanders, they set up the mechanisms for TIO to take on the employees of the TMT Observatory Corporation. It took until about October of 2016 to have things like benefits, insurance, and all the personnel system in place. And then instead of purchasing the services of the employees of the TMT Observatory Corporation, the employees were moved over in to TIO. Tr. 01/4/2017, V. 21 at 76-77.	<u>See response to proposed finding of fact 509 above.</u>
525	73	According to Mr. Sanders, "So in the end, TIO is responsible for all of the construction and all of the operations in the future, and employ people. And TMT Observatory Corporation will in time disappear." Tr. 01/4/2017, V. 21 at 76-77.	<u>See response to proposed finding of fact 509 above.</u>
526	73	Mr. Sanders also stated that the TMT Observatory Corporation is still managing the ends of a few contracts and is completing the management of the planning grant with the NSF which will go through some portion of 2017, or maybe till the end of 2017. Little by little, the TMT Observatory Corporation is reducing its role as part of a transition from one corporation to a successor corporation." Tr. 01/4/2017, V. 21 at 77.	<u>See response to proposed finding of fact 509 above.</u>
527	73	Mr. Sanders further clarified that the TMT Observatory is currently governed by a board, which consists of members from its two owners, University of California and California Institute of Technology. Tr. 01/4/2017, V. 21 at 78.	<u>See response to proposed finding of fact 509 above.</u>
528	73	The CDUA states that the TMT Observatory Project involves four major phases: planning and design, construction and testing, operation, and decommissioning of the TMT Observatory after it reaches the end of its planned useful life. However, the expected life of the TMT Observatory is not disclosed in the CDUA. Ex.	Citation does not support the proposition.

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529	73	The project schedule and Table 1.3 in the CDUA needs to be updated. Ex. B.28 at 1-18 to 1-19.	<p>Citation does not support the proposition. The Flores-Case Ohana does not cite to any legal authority requiring the CDUA to be resubmitted to update a general construction project schedule. Moreover, Mr. Sanders testified that project pre-construction could begin in 2018, with construction to follow if a CDUP is approved. He testified it would take approximately seven years to complete and first light is expected no earlier than 2024. See WDT Sanders (C-2) at 11. Mr. Sanders also testified that the TMT Observatory is designed for a useful life of 50 years. Tr. 1/3/17 at 42:22-43:1.</p> <p>Inaccurate/False as demonstrated in the responses to the following proposed findings of fact. The responses to the following proposed findings of fact are specifically incorporated herein by this reference.</p>
530	74	Several significant deficiencies in the CDUA were brought to the attention of the Applicant during the first contested case hearing in particular to Sect. 4 Cultural Resources and Sect. 7 Visual Impact . As such, the Applicant had several years to address these matters, make necessary revisions and corrections, and resubmit this application. Ex. B.02a.	<p>HRS § 6E-42(a) requires that “[b]efore any agency or officer of the State or its political subdivisions <u>approves any project involving a permit</u> . . . , which may affect historic property, aviation artifacts, or a burial site, the agency or office shall advise [SHPD] and <u>prior to any approval</u> allow the department an opportunity for review and comment on the effect of the proposed project on historic properties, aviation</p>
531	74	The TMT Management Plan in the CDUA only included a Draft Historic Preservation Mitigation Plan (included as an appendix in Exhibit B) R-1 at R-4, CDUA.	

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			<p>artifacts, or burial sites.” (Emphases added).</p> <p>In accordance with HRS § 6E-42(a), the Draft Historic Preservation Mitigation Plan that is attached as Exhibit B to the TMT Management Plan was reviewed and approved by SHPD on December 1, 2010. <u>See</u> Ex. A-137 (stating that SHPD had “no further comments at this time [regarding the CDUA], with the assumption that the project will follow the Historic Preservation Mitigation Plan [which SHPD acknowledged was identified as a draft in the CDUA] and other pertinent historic preservation planning documents associated with the Mauna Kea Science Reserve, such as the Cultural Resources Management Plan that is attached to the Comprehensive Management Plan”).</p> <p>Consequently, in accordance with HRS § 6E-42(a), SHPD has reviewed and approved the Draft Historic Mitigation Plan prior to any approval of the CDUA.</p>

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532	74	<p>The CDUA was submitted to BLNR in October 2010 prior to the acceptance of the final <i>Archaeological Inventory Survey for the Thirty-Meter-Telescope (TMT) Observatory Project ("TMT FAIS")</i> by the State Historic Preservation Division ("SHPD"). Ex. R-1/B.30, CDUA.</p>	<p><u>See response to proposed finding of fact 531 above.</u> The Archaeological Inventory Survey for the Thirty-Meter Telescope (TMT) Observatory was reviewed and approved by SHPD on January 27, 2011. <u>See Ex. A-66.</u></p> <p>Consequently, in accordance with HRS § 6E-42a, SHPD has reviewed and approved the Archaeological Inventory Survey for the Thirty-Meter Telescope (TMT) Observatory prior to any approval of the CDUA. The Flores-Case Ohana does not cite to any authority that required SHPD approval prior to the submission of the CDUA.</p>
533	74	<p><i>Archaeological Inventory Survey for the Thirty-Meter-Telescope (TMT) Observatory Project conducted by Cultural Surveys Hawai'i, Inc.</i> went through three drafts due to concerns by the SHPD prior to being accepted as final in January 2011. Ex. A-66 at 1.</p>	<p><u>See response to proposed finding of fact 532 above.</u></p>

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534	74	<p>Relevant information pertaining to historic properties and cultural resources from the TMT FAIS was not included in the CDDUA. Ex. R-1/B.30, CDDUA.</p>	<p>In its review of the CDDUA, SHPD stated the following:</p> <p>“Project specific archaeological inventory surveys have been completed for this project, and drafts were reviewed by our office in 2009. Subsequent to our review, revised reports have been submitted and are attached to the FEIS. IN addition, the archaeological inventory survey of the Mauna Kea Science Reserve was completed and accepted by our office in 2009. <u>We therefore believe that the information provided in the application regarding archaeological sites in the vicinity of the project area locations is correct and accurate.</u>”</p>
535	74		<p>See response to proposed finding of fact 534 above. “[T]he information provided in the application regarding archaeological sites in the vicinity of the project area locations is correct and accurate.” Ex. A-137. UH was not required to submit the Archaeological Inventory Survey for the Thirty-Meter Telescope (TMT) Observatory as evidence in this case. If the</p>

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			Flores-Case Ohana believed it was inaccurate or should have been considered in this CCH, they could have submitted the survey as evidence. They chose not to. Moreover, if the Hearing Officer believes it is necessary, she can take official notice of the survey pursuant to HAR § 13-1-35(i).
536	74	At the time of the CDUA submittal, the Decommissioning Funding Plan (“DFP”) as a requirement of the CMP’s Decommissioning Plan was not made available for review by DLNR staff, BLNR, and the general public as part of this application process. Ex. C-1 at 5.	TIO’s Initial Decommissioning Funding Plan was admitted into evidence in the CCH as EX. C-39. It is dated April 2014. There is no requirement, and the Flores-Case Ohana points to none, that required this Funding Plan to be included in the CDUA.
537	74	The DFP contains a cost estimate for decommissioning, a description of the method for assuring that funds are available, and the method for adjusting the cost estimate and funding level over the life of the sublease. The DFP describes and documents the sublessee's assurance that a prescribed amount of funding is secured for decommissioning and site restoration. Initially this is based on a conceptual cost estimate and plan to fulfill these requirements. TIO didn't provide its initial DFP to OMKM until 2014. Ex. C-1 at 5.	Misleading. Presented out of context. Unsupported/Unsubstantiated. The Flores-Case Ohana does not cite to any requirement that the DFP should have been provided to OMKM prior to 2014.
538	75	Ms. Aloua testified that only a Draft Historic Preservation Mitigation Plan was included as part of the CDUA review. Tr. 2/15/2017 vol. 36 at 112.	See response to proposed finding of fact 531 above.
539	75	Ms. Aloua testified that the final report for the Archaeological Inventory Survey Report for the TMT project was not part of the CDUA and the Final EIS. The CDUA should be updated to reflect this final report. Tr. 2/15/2017 vol. 36 at 113-115.	See response to proposed finding of fact 532 and 534 above.
540	75	Based upon an extensive review and examination of the CDUA, associated documents, and related archaeological surveys and	Inaccurate/False as demonstrated in the responses to the following proposed findings of

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		<p>reports, it was determined that significant parts of the CDUA Sect. 4 Cultural Resources pertaining to Mauna Kea are incomplete, inaccurate, and omits significant information. Ex. B.02a at 11.</p>	<p>fact. The responses to the following proposed findings of fact are specifically incorporated herein by this reference.</p>
541	75	<p>The TMT proposes to be located within the Mauna Kea Summit Region Historic District (SHHP #50-10-23-26869) which is historically and culturally significant under all five criteria of the Hawai'i Register of Historic Places (HRHP) and Hawai'i Administrative Rules (§13-275) and under all four criteria of the National Register; and this Historic District is eligible for inclusion in the National Register of Historic Places (NRHP) as well as eligible for designation as a Traditional Cultural Property (TCP). Ex. B.02a at 11-12.</p>	<p><u>See response to proposed finding of fact 285 above.</u></p> <p>The TMT Project “would have minimal adverse impact on the character of the District.” Ex. R-1 at 2-6.</p> <p>Flores’ biased testimony is also contradicted by the credible and substantial evidence presented that it was found, after extensive consultation, that there are no known ahu (other than those that were erected after or in protest of the TMT Project) or historical features near the TMT Project area. <u>See UH-TIO FOF ¶1342.c; 629.</u></p>
542	75		<p>The MKSRHD is not listed on the National Register of Historic Places. <u>See UH-TIO FOF ¶522 (citing Ex. A-1/R-1 at 4-3).</u></p> <p><u>See response to proposed finding of fact 541 above.</u></p> <p>The MKSRHD includes a concentration of significant historic properties that are linked through their setting, historic use, traditional associations, and ongoing cultural practices. The properties include shrines, adze quarry complexes and workshops, burials, stone markers/memorials, temporary shelters, historic campsites, traditional cultural properties, historic trails, and sites of unknown function. Ex. B.02a at 12.</p>

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543	75	<p>Despite the known historic and cultural significance of Mauna Kea, the CDUA was incomplete for failing to:</p> <ul style="list-style-type: none"> • disclose the impacts of the TMT upon the integrity of the historic properties within the broader context of the Mauna Kea Summit Region Historic District. • assess the impacts of the TMT upon the NRHP criteria for eligibility. • assess the impacts of the TMT upon the HRHP integrity. • assess the impacts of the TMT upon the TCP criteria for eligibility. <p>Ex. B.02a at 12.</p>	<p><u>See response to proposed finding of fact 541 above.</u></p> <p>Inaccurate/False. The Flore-Case Ohana rely solely on the biased testimony of Mr. Flores, which is clearly inaccurate. The potential impacts of the TMT Project on the MKSRHD and the Kukahau‘ula TCP are disclosed and discussed in the CDUA. <u>See e.g., Ex. R-1 at 2-6</u> (The TMT Project “would have minimal adverse impact on the character of the District.”); Ex. R-1 at 4-1 through 4-5; <u>id. at 4-7</u> (discussing impacts on pilgrimage, prayer, shrine construction, and offerings in “summit region, which includes the [MKSRHD] and the Kukahau‘ula TCP); TMT Management Plan, Ex. B to R-1 at 3-13.</p> <p>The MKSRHD and significance criteria were also addressed and discussed during this CCH. <u>See e.g., UH-TIO FOF ¶¶529-542.</u></p>
544	75	<p>The CMP stipulates that any potential siting of new observatories in the summit region needs to consider potential impacts to the cultural landscape, which includes both landforms and the recognized cultural significance of summit region. Ex. 28 at 7-57, CMP.</p>	<p>Not in dispute to the extent the document speaks for itself.</p>
545	76	<p>Despite this guideline in the CMP, the CDUA was incomplete for failing to:</p> <ul style="list-style-type: none"> • assess the impacts of the TMT upon the cultural landscape on 	<p>Inaccurate/False. The Flore-Case Ohana rely solely on the biased testimony of Mr. Flores, which is clearly inaccurate. There is credible</p>

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		<p>the northern plateau that is presently undeveloped without any telescopes.</p> <p>Ex. B.02a at 12.</p>	<p>and substantial evidence in the record that the CDUA including the documents attached thereto do assess the impacts of the TMT Observatory upon the Astronomy Precinct, including the northern plateau. See e.g., UH-TIO FOF ¶¶306, 308, 342.c., 641, 681, and 783.</p> <p>Mr. Flores himself also conceded during cross-examination that the Astronomy Precinct, which includes the northern plateau, was “substantially developed.” Tr. 1/30/17 at 234:5-8. The Northern Plateau also includes roads and facilities for the Submillimeter Array. See UH-TIO FOF ¶783.</p>
546	76	<p>Dr. Abad testified that archaeologists following best practices will look at regional perspectives. Tr. 01/19/2017, vol 27 at 25: 3-6.</p>	<p>Not credible. Dr. Kehau Abad’s testimony was not credible given her clear and demonstrated personal bias, her admittedly incomplete review of the relevant documents, and her multiple statements that were clearly contradicted by the record. See e.g., UH-TIO FOF ¶¶604-608. For example, Dr. Abad conceded that the CDUA did in fact address areas of concern outside of the TMT Project area, but within the MKSRHD or her “regional perspective”, including Lake Waiau and Kūkāhau’ula. Tr. 1/19/17 at 129:14-133:21. Dr. Abad also admitted that she did not review <u>Kilakila O Haleakala</u>, which affirmed that BLNR may focus its analysis on the permitted land use within the context of a specific area within a Conservation District</p>

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		designated for similar uses – e.g., the Astronomy Precinct. See UH-TIO FOF ¶120. Dr. Abad's testimony should be given no weight.	<u>See response to proposed finding of fact 546 above.</u>
547	76	Dr. Abad stated, “A regional perspective and unit of analysis is also strongly advised from an academic, archaeological perspective concerned with the scientific significance of sites.” This is because “studies using a smaller sized site as a unit of analysis lack rigor and fail to glean the full explanatory potential from the archaeological record, especially as it relates to surface artifacts.” Ex. B.08a at 6.	<u>See response to proposed finding of fact 546 above.</u>
548	76	A site-specific focus on high density areas of artifacts may exclude low density areas and result in a detrimental, biased view of the past of unrelated, uneven spots of high cultural activity. Ex. B.08a at 6.	<u>See response to proposed finding of fact 546 above.</u>
549	76	These concerns are applicable to finds at Mauna Kea, where a historical district would be an appropriate scale of study as opposed to a scale focused on each of 263 separate sites within that district. Ex. B.08a at 6-7.	<u>See response to proposed finding of fact 546 above.</u>
550	76	Dr. Abad testified, “If we don’t look at what’s happening at a regional level, we miss the importance of how these sites might be interacting with one another.” Tr. 01/19/2017, V. 27 at 24: 10-14.	<u>See response to proposed finding of fact 546 above.</u>
551	76	Where one site has very high significance, its importance emanates out to other areas, and may be given a buffer of respect. Tr. 01/19/2017, V. 27 at 25.	<u>See response to proposed finding of fact 546 above.</u>
552	76	Dr. Abad testified that the TMT CDUA did not include assessment of the visual impacts on the Mauna Kea regional historic district. Tr. 01/19/2017, V. 27 at 63.	<u>See response to proposed finding of fact 546 above.</u>
553	76	At Mauna Kea, there is a huge district at a regional level that	<u>See response to proposed finding of fact 546</u>

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		includes hundreds of some of the most important, significant cultural and archaeological sites. “[F]rom every view, they’re astounding and they’re extraordinary on so many levels.” Tr. 01/19/2017, V. 27 at 29.	above.
554	76	The scale and relatively huge footprint of the TMT project within the regional landscape would compromise the integrity of historic sites in that area. Tr. 01/19/2017, V. 27 at 33.	See response to proposed finding of fact 546 above. This is also contradicted by the substantial and credible evidence in this case that there are no known ahu (other than those that were erected after or in protest of the TMT Project) or historical features near the TMT Project area, <u>see UH-TIO FOF ¶1342.c; 629,</u> and that the TMT Project “would have minimal adverse impact on the character of the District.” Ex. R-1 at 2-6.
555	77	In preparing her oral and written testimony, Dr. Abad reviewed the CDUA, the FEIS, and the incorporated CIA and AIS, for the TMT project. Ex. B.08a at 1. Dr. Abad opined that these documents lacked the appropriate unit of analysis - a wide lens regional perspective –and were also flawed in regard to the process of who was involved at what point to inform the reports and determinations. Tr. 01/19/2017, V. 27 at 56.	See response to proposed finding of fact 546 above.

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556	77	On January 25, 2017, Dr. Peter Mills, who has been teaching at the UHH for nineteen years, was called as a witness by Mauna Kea Anaina Hou. Tr. 01/25/2017, V.30 at 11.	<p>Not credible. The testimony of Dr. Peter Mills was not credible given his admittedly incomplete review of the relevant documents and his multiple statements that were clearly contradicted by the record. See UH-TIO FOF ¶559. For example, Prof. Mills admitted that he had not read the CDUA and the FEIs in their entirety. Tr. 1/25/17 at 130:9-132:3. Prof. Mills also testified under oath that SHPD sites 16169 and 21447 were omitted from the CDUA. On cross-examination, Prof. Mills conceded that both sides were included in the CDUA. Tr. 1/25/17 at 152:1-153:7; Ex. R-1 at Fig. 4.1. Prof. Mills also admitted that he had not read <u>Kilakila O Haleakala</u>. Tr. 1/25/17 at 147:21-24. Prof. Mills' testimony should be given no weight.</p>
557	77	Dr. Mills, who has a Ph.D degree and a M.A. degree in Anthropology, is a qualified archaeologist who meets the standards of the Secretary of the Interior (36 CFR Part 61), and Hawai'i's rules covering professional qualifications for principal investigators on archaeological projects in Hawai'i (HAR §13-281-8). He has served as the President of the Society of Hawaiian Archaeology and specifically conducted geological and archaeological research on the Mauna Kea Adze quarry. Dr. Mills has a considerable amount of experience reviewing environmental impact statements under federal processes and Massachusetts state processes, through his work at the Massachusetts Historical Commission. At UHH, Dr. Mills developed a Heritage Management graduate program that deals with issues such as the ones raised by the TMT CDUA. Ex. B.12a at 1; Ex. B.12b; Tr.	<p>See response to proposed finding of fact 556 above.</p>

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	01/25/2017, V.30 at 12.		
558	77	Dr. Mills stated that the eligibility of the Mauna Kea Region Historic District is particularly relevant when determining the “Area of Potential Effect” (APE) of any proposed project, including the TMT. Ex. B.12a at 1.	<u>See response to proposed finding of fact 556 above.</u>
559	77	Dr. Mills testified that portions of Mauna Kea have been assigned as traditional cultural properties (TCPs) and eligibility determinations have been made under the National and State Historic Registers. Tr. 01/25/2017, V.30 at 84: 22-25.	<u>See response to proposed finding of fact 556 above.</u>
560	77	Federal regulations define “APE” as “the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist[.]” 36 C.F.R. § 800.16[b]. APE is also referenced under HRS Chapter 343 and associated guidelines for cultural impact assessments: “In scoping the cultural portion of an environmental assessment, the geographical extent of the inquiry should, in most instances, be greater than the area over which the proposed action will take place. This is to ensure that cultural practices which may not occur within the boundaries of the project area, but which may nonetheless be affected, are included in the assessment.” Ex. B.12a at 2. (citing <i>Guidelines for Assessing Cultural Impacts</i> , Office of Environmental Quality Control (OEQC), State of Hawai‘i, Nov. 19, 1997, p. 11. Ex. B.12c).	This CCH is about the approval of a CDUA under the eight criteria set forth in HAR § 13-5-30(c), not an EIS under HRS Chapter 343. The time to comment on and challenge the EIS has passed. In fact, Prof. Mills commented on the DEIS for the TMT Project and described the DEIS as “[h]aving been professionally prepared.” Ex. R-4 at 343 of 531. Prof. Mills conflates the requirements of HRS Chapter 343 with HAR § 13-5-30(c).
561	78	Dr. Mills testified that OEQC Guidelines assist in clarifying what should be considered in assessing an APE for the TMT. Tr. 01/25/2017, V.30 at 89: 11-14.	<u>See responses to proposed findings of fact 556 and 560 above.</u>

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562	78	<p>Ms. Aloua reiterated that the CDUA neglects to evaluate how the TMT project would impact the Mauna Kea Summit Region Historic District as a whole. The CDUA should be deemed incomplete until these evaluations are provided. Ex. B24a at 1.</p>	<p>Not credible. Ms. Aloua's testimony was not credible given her clear and demonstrated personal bias, her admittedly incomplete review of the relevant documents, and her multiple statements that were clearly contradicted by the record. <u>See e.g.</u>, UH-TIO FOF ¶602. For example, Ms. Aloua admitted that she did not review the CDUA, FEIS, or their incorporated documents in depth, nor did she review the archaeological studies conducted for the MKSR and the Astronomy Precinct. Tr. 2/14/17 at 202:22-203:1, 206:11-15; Tr. 2/15/17 at 66:3-86:4. Ms. Aloua's testimony should be given no weight.</p> <p>Citation does not support the proposition. There is no transcript from 4/3/17. Moreover, as noted in the above responses, and as demonstrated in the credible and substantial evidence in the record, the TMT Project did consider potential impacts to the MKSRHD and found that the TMT Project "would have minimal adverse impact on the character of the District." Ex. R-1 at 2-6.</p>
563	78	<p>Nees affirmed that when doing an analysis within a Historic District, it's important to look at how the project would potentially impact all the sites within that district. Tr. 4/3/17 vol. 12 at 85.</p>	

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564	78	<p>Nees affirmed that his firm PCSI did <u>not</u> conduct a viewplane analysis of the historic properties or find spots within the Astronomy Precinct in relationship to the proposed TMT project.</p> <p>Tr. 4/3/17 vol. 12 at 102.</p>	<p>Citation does not support the proposition. There is no transcript from 4/3/17.</p> <p>Misrepresentation. Mr. Nees testified that he was not aware if his firm, PCSI, conducted a viewplane analysis of the historic properties or find spots within or outside the Astronomy Precinct in relationship to the TMT Project. See Tr. 12/5/16 at 102:14-103:7.</p> <p>The credible and substantial evidence in the record establishes that an extensive analysis of viewplanes was conducted in connection with the TMT Project. See UH-TIO FOF ¶¶775-795; WDT Hayes at 2-17. The Flores-Case Ohana has not presented any credible evidence that the viewplanes from any other alleged historic properties or find spots would be impacted by the TMT Project. To the extent Mr. Flores had any such information, he could have, but refused or declined to, provide such information during the EIS process. See UH-TIO FOF ¶216; Tr. 1/30/17 at 222:3-22.</p> <p>See response to proposed finding of fact 564 above.</p>
565	78	<p>Nees affirmed that his firm PCSI did <u>not</u> conduct a viewplane analysis of the historic properties or find spots outside the Astronomy Precinct in relationship to the proposed TMT project.</p> <p>Tr. 4/3/17 vol. 12 at 102-103.</p>	<p>See response to proposed finding of fact 564 above.</p>
566	78	<p>Nees disclosed that the evaluation of determining whether a site is a historic property or not is typically done back at the office by Dr. (Patrick) McCoy based upon photos and data collected by the field crew. Tr. 4/3/17 vol. 12 at 110-112.</p>	<p>See response to proposed finding of fact 564 above.</p>

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567	78	Nees affirmed that while working in field on various projects pertaining to Mauna Kea, his firm PCSI did <u>not</u> consult with or utilize any cultural practitioners in the field to assist in identifying some of the ‘unknown’ sites. Tr. 4/3/17 vol. 12 at 109-110.	Citation does not support the proposition. There is no transcript from 4/3/17. Mischaracterization. Misrepresentation. Mr. Nees testified that, in general, cultural practitioners are not out in the field with them when they are doing the field work for archaeological inventory surveys. <u>See Tr. 12/5/16 at 109:18-110:2.</u> Mr. Nees did not refer to any specific project or area. <u>See id.</u>
568	78	Ms. Nagata testified that PCSI did not do the AIS for the TMT project specific. Tr. 12/12/16 vol 18 at 110 – 111.	Not credible. Significant and appropriate consultation regarding the TMT Project has been and continues to be conducted. <u>See e.g., FOF ¶¶210-237; Ex. R-5, Appx. D (Cultural Impact Assessment Report)</u>
569	78	The AIS of the Mauna Kea Science Reserve conducted by PCSI is void of any consultation with Native Hawaiian cultural practitioners associated with customary and traditional practices in the vicinity of the proposed TMT project. Ex. B.02a at 11 – 13.	Unsupported/Unsubstantiated. The Flores-Case Ohana fails to present any actual or independent evidence to support this proposed finding of fact. They only present the biased testimony of Mr. Flores, which also fails to provide any specifics, maps, or photographs, regarding the alleged location of these cultural sites, their alleged functions, and relationships to each other. The Flores-Case Ohana’s claim that these alleged cultural sites will be affected by the TMT Project is also unsupported and unsubstantiated.
570	78	As a result, significant cultural sites in the vicinity of the proposed TMT project have been overlooked and the functions and purposes of previously identified sites have been inaccurately depicted. Ex. B.02a at 11 – 13.	
571	78-79	Members of the Flores-Case ‘Ohana have identified significant sites through ‘ <i>ike kupuna</i> , indigenous knowledge and ancestral	<u>See response to proposed finding of fact 570 above.</u> “[T]he information provided in the

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		insight within the vicinity of the proposed TMT that have <u>not</u> been identified in archaeological surveys that would be adversely impacted by such a project in the proposed location. Ex. B.02a at 13.	application regarding archaeological sites in the vicinity of the project area locations is correct and accurate.” Ex. A-137.
572	79	Many of the <i>ahu</i> (shrines) and other formations on the northern plateau are interconnected by location, function, orientation, and energetic lines. The TMT would be situated amongst these sites causing adverse disturbance and impacts between the grid of interconnected sites. Ex. B.02a at 13.	<u>See</u> response to proposed finding of fact 570 and 571 above.
573	79	The <i>2000 Master Plan</i> stipulates the following guideline for Siting Criteria for telescope development: Minimum visual impact from significant cultural areas. Views from the pu‘u and archaeological sites will be respected in the siting of future facilities. The location of new facilities will avoid interference with the visual connections between the major pu‘u and the shrine complexes. Ex. B.28 at IX-22.	Citation does not support the proposition. Nevertheless, the quoted language, which the Flores-Case Ohana concedes is a “guideline[,]” states: “Minimum visual impact from significant cultural areas.” First, it does not state no visual impact. It also says from “significant cultural areas.” The credible and substantial evidence in the record establishes that an extensive analysis of viewplanes was conducted in connection with the TMT Project. <u>See</u> UH-TIO FOF ¶¶775-795; WDT Hayes at 2-17. Indeed, as testified to by Mr. Hayes, this in-depth viewplane analysis included viewplanes from “culturally significant areas” such as the summit of Mauna Kea, Lake Waiau, Pu‘u Poliahu, the northern plateau, and the northern ridge of Kukahau‘ula. <u>See</u> WDT Hayes at 15-17. For example, the viewplane analysis from Pu‘u Poliahu concluded that the TMT Observatory, because of its location, lower elevation, and its reduced height, would not block the view of Maui from the northern ridge

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			or Pu‘u Poliahu. <u>See id.</u> at 17; <u>see also</u> Ex. C-19.
574	79	Despite this guideline in the <i>2000 Master Plan</i> , the CDUA was incomplete for failing to: <ul style="list-style-type: none"> • assess the impacts of the TMT upon the view planes and spatial relationship amongst the hundreds of <i>ahu</i> (shrines) considered historical properties and cultural resources. • assess the impacts of the TMT upon the visual alignments between the various <i>ahu</i> (shrines) and the summit and noted <i>pu‘u</i> (i.e. Pu‘u Kūkāhau‘ula, Pu‘u Poliahi). 	Inaccurate/False. <u>See response to proposed finding of fact 573 above.</u>
575	79	Dr. Abad testified that the TMT Project CDUA failed to properly assess upright sites or <i>ahu</i> of various shapes and sizes on Mauna Kea, which do not exist in isolation, but are rather alignments that connect to other <i>ahu</i> or ridge peaks, for example. Tr. 01/19/2017, V. 27 at 35. Ex. B.02a at 12.	Not credible. Dr. Abad was not credible and her testimony should not be given any weight. <u>See response to proposed finding of fact 546 above.</u> Dr. Abad did not identify any alleged upright sites or <i>ahu</i> that would be impacted by the TMT Project.
576	79	Dr. Abad also testified that the viewplane marked by these alignments are tremendously important and it is very likely that the TMT will block important viewplanes. Tr. 01/19/2017, V. 27 at 36.	Not credible. Dr. Abad was not credible and her testimony should not be given any weight. <u>See response to proposed finding of fact 546 above.</u> Dr. Abad also did not identify any alleged viewplanes that she believed would be blocked by the TMT Observatory.

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577	79-80	<p>CDUA HA-3568 was incomplete for failing to:</p> <ul style="list-style-type: none"> • disclose the impacts upon SIHP Site Nos 16169 and 21447 along with other cultural resources referred to as “find spots” (Nos. 1997.034, 2005.05, 2005.06, 2000.7, & 2005.08) that are within the Astronomy Precinct and within the vicinity of the proposed TMT project area. The CDUA omitted any reference to these sites even though they are identified in archaeological reports and survey maps. • assess the impact of construction activities upon historical properties and cultural resources within the vicinity of the proposed TMT project area and the potential of toppling over of <i>ahu</i> due to ground disturbing activities. • assess the impacts upon the historic & cultural resources due to the increased intensity of the conservation district land use with further subdivision with the subleasing to TMT • assess the impact of construction activities associated dust and noise upon cultural practitioners and their practices. • assess the impact of construction activities upon the access of cultural practitioners to cultural sites on the northern plateau and near the Batch Plant. <p>Ex. B.02a at 12.</p>	<p>Inaccurate/false. Not credible.</p> <p>Mr. Flores testified under oath that the CDUA “omitted any reference” to SIHP Site Nos. 16169 and 21447. Tr. 1/30/17 at 236:14-239:7. On cross-examination, Mr. Flores conceded that Figure 4.1 of the CDUA does refer to both sites. See <i>id.</i>; Ex. R-1 at Figure 4.1.</p> <p>The FEIS also discusses and assesses the impacts to cultural, archaeological, and historic resources. See Ex. R-3 at 3-192 through 3-193. The FEIS concluded that “[o]verall, through compliance with existing rules and policies, Project construction will not have an adverse impact on cultural, historical, or archaeological resources.” <i>Id.</i></p> <p>In this proposed finding of fact, the Flores-Case Ohana seemingly attempt to limit the consideration to the CDUA. Petitioners and Opposing Intervenors employed such “cherry-picking” previously during the CCH. The FEIS, however, <u>inter alia</u>, is to be considered in determining whether to approve the CDUA.</p> <p>These inaccuracies in Mr. Flores’ testimony, which the Flores-Case Ohana rely heavily on, combined with his clear bias, demonstrates Mr. Flores’ lack of credibility and his testimony, particularly his unsupported conclusions,</p>

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578	80	<p>TMT CDUA arbitrarily and inappropriately limited review to within 200 feet of the Project site and 500 feet of the Batch Plant. The TMT CDUA isolated the project area from the contiguous historic district, as evident in its Figure 2-1. Ex. B.08a at 7.</p> <p>The Flores-Case Ohana relies upon the direct testimony of Dr. Abad for this proposed finding of fact. Dr. Abad again is not credible for the reasons stated previously.</p> <p>On page 7, paragraph 8, of her direct testimony, Dr. Abad refers to a “TMT CDUA.” She is actually referring to the TMT Management Plan, which is Exhibit B to the CDUA. Page 2-2 of the TMT Management Plan states that “[t]here are no historic properties located within 200 feet of the limits of grading at the proposed TMT Observatory 13N site.” This is an accurate statement. Neither the Flores-Case Ohana nor Dr. Abad provided any evidence to dispute this statement. See also 2000 Master Plan, ex. A-44 at IX-200 (noting that a 200 foot setback is “10 times the setback distance required by the Hawai‘i Island Burial Council for development near existing burials”).</p> <p>Moreover, these statements cannot be credibly read to mean, as the Flores-Case Ohana suggests, that the TMT Project’s review of potential impacts to historic properties was limited to 200 feet from the Project Site or 500</p>	

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			feet from the Batch Plan. Indeed, for example, just two pages later on page 2-4 of the TMT Management Plan, Figure 2-1 identifies the historic properties that are within the Astronomy Precinct, which goes beyond the 200 feet that the Flores-Case Ohana and Dr. Abad claim the CDUA limited its review to.
579	80	“There’s no explanation as to where the 200 feet came from. Why 200? Why not 2,000? Why not the whole historic district?” Tr. 01/19/2017, V. 27 at 70.	<u>See response to proposed finding of fact 578 above.</u>
580	80	Similarly, there is no explanation as to why 500 feet was used as the limit for assessing individual historic properties located near the Batch Plant. Tr. 01/19/2017, V. 27 at 70.	<u>See response to proposed finding of fact 578 above.</u>
581	80	There is no explanation regarding why sites in the required wider regional perspective were excluded from the map and analysis and how the seemingly arbitrary 500-foot limit was determined. In fact, upon closer examination, the statement itself is false since one of the 17 sites depicted, the Kūkāhau‘ula traditional cultural property (TCP), “is located approximately 50 feet to the east of the Batch Plant area”. R-1 at 2-4; Ex. B.08a at 7-8.	<u>See response to proposed finding of fact 578 above.</u> Page 2-3 of the TMT Management Plan (Exhibit B. to R-1) clearly states: “There are no individual historic properties located within 500 feet of the Batch Plant. The Kukahau‘ula TCP is located approximately 50 feet to the east of the Batch Plant area.”
582	80	The TMT CDUA apparently excluded Kūkāhau‘ula as a site for inclusion in their analysis under the belief that the portion of Kūkāhau‘ula located within the arbitrary 500 feet radius of the Batch Plant does not include “individual historic properties” is a site complex or district comprised of multiple sites, which constitutes a distinct historic property bearing its own site number (SIHP No. 50-10-23-21438). It greater significance, scale, and	<u>See response to proposed finding of fact 578 and 581 above.</u> The Flores-Case Ohana cite to Dr. Abad’s direct testimony. Dr. Abad is again wrong as Kukahau‘ula was not excluded in reviewing the potential impacts of the TMT Project. See e.g., Ex. R-1 at 4-8 through 4-9.

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		complexity than other sites identified in the area. Ex. B.08a at 7-8.	Not a finding of fact.
583	80	HAR §13-276-2 defines “historic property” as “any building, structure, object, district, area, or site, including heiau and underwater site, which is over fifty years old” (emphasis added). Ex. B.08a at 7-8.	Misrepresentation. Page 2-2 of the TMT Management Plan correctly states that Kukahau‘ula has been determined by SHPD to be a historic property. Ex. B to R-1 at 2-2. Dr. Abad, who the Flores-Case Ohana rely on for this proposed finding of fact, not only misrepresents the document, but also is incorrect in her attempt to misrepresent Kukahau‘ula as a historic “district.”
584	81	“The Kūkāhau‘ula TCP is a historic property (SIHP No. 50-10-23-21438) occupying an area of approximately 463 acres” (TMT CDUA, p. 2-2). It “consists of a group of pu‘u commonly known as Pu‘u Hau‘oki, Pu‘u Wēkiu, and Pu‘u Kea” and “has been determined to be a historic [district] by SHPD owing its association with legendary figures and ongoing Native Hawaiian cultural practices” (<i>Ibid.</i>). Ex. B.08a at 7-8.	Misleading. Presented out of context. Dr. Abad is again referring to the TMT Management Plan attached to the CDUA as Ex. B. Moreover, to repeat, Dr. Abad is again wrong as Kukahau‘ula was included in the review of the TMT Project’s potential impacts. See e.g., Ex. R-1 at 4-8 through 4-9. Her “cherry picking” of one page of the TMT Management Plan to support her incorrect and false statements demonstrates her lack of credibility. The fact that the Flores-Case Ohana repeats her “cherry-picked” statements that are not supported by the record also demonstrates their lack of credibility.
585	81	“Approximately 1,100 feet of the 3,400 foot long Access Way serving the TMT Observatory would cross Kūkāhau‘ula.” This statement offered in the TMT CDUA is not accompanied by an analysis demonstrating how the TMT project will not create substantive adverse impacts to Kūkāhau‘ula. Ex. B.08a at 7-8.	There was no information omitted. See response to proposed finding of fact 556 above.
586	81	“[E]very time infformation is omitted, we have less context for what we’re trying to interpret.” Tr. 01/25/2017, V.30 at 24: 4-6.	

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			This proposed finding of fact is based upon the testimony of Prof. Mills. Prof. Mills is not credible for the reasons already set forth in this response.
587	81	The TMT CDUA omitted a number of “find spots” and even sites (SIHP -1619 and -21447) that are identified within the UH managed areas of the Mauna Kea summit. Ex. B.12a at 2.	See responses to proposed findings of fact 556 and 586. No find spots were omitted as conceded by Prof. Mills on cross-examination.
588	81	In 1997, SHPD instituted a process of recording locations termed “find spots,” which are cultural resources that are either obviously modern features or features that cannot be classified with any level of confidence as historic sites because of their uncertain age and function. Tr. 01/25/2017, V.30 at 67-68.	Prof. Mills is not credible. See UH-TIO FOF ¶512 instead.
589	81	“Find spots” nominate sites that are potentially culturally important and may include sites that are less than fifty years old. Tr. 01/25/2017, V.30 at 25, 26: 4-6.	Prof. Mills is not credible. See UH-TIO FOF ¶512 instead.
590	81	Just because modern materials are found in an area does not immediately remove the site from the realm of ritual practice. Tr. 01/25/2017, V.30 at 68:18-20.	Prof. Mills is not credible. See UH-TIO FOF ¶512 instead.
591	81	Recent ritual practices on Mauna Kea need to be considered within the scope of a cultural impact assessment. Tr. 01/25/2017, V.30 at 26: 22-25.	The actual testimony from Prof. Mills states: “I do feel that underneath cultural impact assessment absolutely that modern ritual practices on that mountain are still things that need to be considered underneath Chapter 343 in terms of cultural impact assessment.” Tr. 1/25/17 at 26:22-27:1. Like the rest of his testimony, Prof. Mills conflates HRS Chapter 343 regarding EIIs, with HAR § 13-5-30(c). Prof. Mills’ testimony is not credible and

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592	81	Dr. Abad testified that any activities proposed within the Mauna Kea regional district should have triggered high levels of cultural conversations, consultation, engagement, decision making, but this did not occur. Tr. 01/19/2017, vol. 27 at 55-56.	Not credible. Dr. Abad's testimony is not credible for all the reasons already stated. Moreover, significant and appropriate consultation regarding the TMT Project has been conducted and continues to be conducted through this contested case. See e.g., UH-TIO FOF ¶¶210-237; Ex. R-5, Appx. D (Cultural Impact Assessment Report).
593	82	The TMT Project CDUA further failed to consider intangible resources, including the feeling and integrity of a site, which are considered under significance criteria described in HAR §13-284-6. To be significant, a historic property shall possess integrity of location, design, setting, materials, workmanship, feeling, and association and shall meet one of the historic property criteria. Tr. 01/19/2017, V. 27 at 36-37.	See response to proposed finding of fact 592 above.
594	82	Bulletin 38 offered similar guidance at the federal level. Tr. 01/19/2017, V. 27 at 36: 20-25. Bulletin 38 guidance states how sites should be evaluated and how to identify them in tandem with cultural consultations, particularly for archaeologists that lack cultural knowledge. Tr. 01/19/2017, V. 27 at 38: 10-12 citing Exhibit B.08j. Such archaeologists cannot make determinations of cultural importance or impacts, rather that call must come from within the culture. Tr. 01/19/2017, V. 27 at 41:10-12. Bulletin 38 counseled that some informants may have inappropriate motivations and, in such cases, to also look at historical evidence such as ethnohistoric written records and to question the integrity of informants and whether the informant is judged to be credible by the pertinent cultural group. <i>Id.</i> , at 89-90.	See response to proposed finding of fact 592 above.
595	82	“[T]he role of a cultural perspective is absolutely necessary in all	See response to proposed finding of fact 592

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		levels of analysis, and this is what anthropologists and archeologists [sic] would refer to as emic perspectives.” Tr. 01/19/2017, V. 27 at 26: 7-11.	above.
596	82	An emic perspective is necessary to applying historic preservation legal criteria A, B, C, D, E. Criterion E, under HAR §13-284-6, concerns properties that have an important value to the Native Hawaiian people or to another ethnic group of the state due to associations with cultural practices once carried out, or still carried out, at the property or due to associations with traditional beliefs, events, or oral accounts, these associations being important to the group’s history and cultural identity. This requires archaeologists to ask someone from within the applicable culture about the property’s importance. Tr. 01/19/2017, V. 27 at 27 - 28.	<u>See response to proposed finding of fact 592 above.</u>
597	82	One of the largest flaws in archaeological and cultural impact documents prepared for the TMT project is that the two functions of consulting with knowledgeable Native Hawaiians and looking at sites has been bifurcated. Tr. 01/19/2017, V. 27 at 28.	The Flores-Case Ohana compounds the lack of credibility by also misrepresenting Dr. Abad’s testimony. Dr. Abad did not state that “[o]ne of the largest flaws in archaeological and cultural impact documents prepared for the TMT Project . . .” In the portion of her testimony cited, Dr. Abad did not even mention any of the reports related to the TMT Project. <u>See Tr. 1/19/17 at 28:10-13.</u>
598	82	[T]he way the research was conducted is that people were asked, tell us about why Mauna Kea is important, and they were never asked, here, this is what we found when we looked at the archaeology. Here’s a picture. Here’s – here’s the report. Come. Let’s go look. Let’s go look in person. What do you folks think?	<u>See response to proposed finding of fact 592 above.</u>

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		That important step to bridge the two never occurred. And so, you had archeologists saying, oh, I don't think that's going to be a significant impact, this – planned project. No significant impact. Tr. 01/19/2017, V. 27 at 28-29.	
599	82-83	In reference to the preparers of TMT Project documents, Dr. Abad stated, “what they’ve done is just said this is all we’re going to look at, and we’re not even going to ask people about the interaction between their beliefs and this – these set[s] of findings.” Tr. 01/19/2017, V. 27 at 29.	<u>See response to proposed finding of fact 592 above.</u>
600	83	Dr. Abad opined that these documents did not fulfill standards of the discipline of archaeology, in contrast to, for example, the NASA Report. Tr. 01/19/2017, V. 27 at 33; Ex. B.03 ap.	<u>See response to proposed finding of fact 592 above.</u>
601	83	It was not only the quantitative lack of consultation with Native Hawaiian cultural practitioners, but also the types of questions that were asked and the kinds of information that were provided in the asking of the questions. Tr. 01/19/2017, V. 27 at 84.	<u>See response to proposed finding of fact 592 above.</u>
[601a]	83	Dr. Mills testified that together, the AIS and CIA were required to consult with cultural practitioners to understand how they perceive a place, and what the spiritual qualities of that place may be and to frame proposed TMT project plans in a way which recognizes what those values are.	Not credible. Prof. Mills’ testimony is not credible for all the reasons already stated. Moreover, significant and appropriate consultation regarding the TMT Project has been and continues to be conducted. See e.g., UH-TIO FOF ¶1210-237; Ex. R-5, Appx. D (Cultural Impact Assessment Report).
[601b]	83	A major reason for the CIA’s inadequacy was the limited area of potential effect it considered.	<u>See response to proposed finding of fact [601a] above.</u>
602	83	Cultural impact assessments of the TMT Project have focused on physical effects on historic properties, and not adequately considered indirect effects on cultural practitioners and traditional and customary practices. Tr. 01/25/2017, V.30 at 14:10-20.	<u>See response to proposed finding of fact [601a] above.</u>

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603		“The potential of the proposed action to introduce elements which may alter the setting in which cultural practices take place.” Ex. B.12a at 2 citing B.12c (OEQC Guidelines at 13).	<p><u>See response to proposed finding of fact [601a] above.</u></p> <p>This CCH is about the approval of a CDUA under the eight criteria set forth in HAR § 13-5-30(c), not an EIS under HRS Chapter 343. The time to comment on and challenge the EIS has passed. In fact, Prof. Mills commented on the DEIS for the TMT Project and described the DEIS as “having been professionally prepared.” Ex. R-4 at 343 of 531. Prof. Mills conflates the requirements of HRS Chapter 343 with HAR § 13-5-30(c).</p>
604	83	OEQC guidelines are particularly relevant because the TMT would be visible to cultural practitioners over much of the island, thus introducing an expansive APE that would include large portions of Hilo, Kohala, and Kona. Ex. B.12a at 2.	<p><u>See response to proposed finding of fact 603 above.</u></p> <p>The expectation is that assessment of the project’s effects are to be broadly scoped to try to consider the impacts of these undertakings on cultural practitioners. Tr. 01/25/2017, V.30 at 15.</p>
605	83		<p><u>See response to proposed finding of fact 603 above.</u></p> <p>The viewplanes from Waimea were considered in the FEIS. See e.g., FEIS, R-3 at S-15 (noting that the “TMT Observatory will be visible from 14% of the island area . . . including portions of Honoka‘a, Waimea, and Waikoloa”); Id. at 3-92 (Figures 3-10 and 3-11).</p>
606	83	A cultural practitioner in Waimea who wakes up in the morning and sees a Thirty Meter Telescope on Mauna Kea from their home should be considered within the scope of adverse effects on cultural practitioners, even if they aren’t on the mountain or within the Mauna Kea Historic District. Tr. 01/25/2017, V.30 at 15.	<p><u>See response to proposed finding of fact 603 above.</u></p> <p>The viewplanes from Waimea were considered in the FEIS. See e.g., FEIS, R-3 at S-15 (noting that the “TMT Observatory will be visible from 14% of the island area . . . including portions of Honoka‘a, Waimea, and Waikoloa”); Id. at 3-92 (Figures 3-10 and 3-11).</p>

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607	84	That assessment is not in the CDUA. Tr. 01/25/2017, V.30 at 15.	<u>See responses to proposed findings of fact 603 and 607 above.</u>
608	84	The lives of cultural practitioners who wake up in their own homes every day and see the TMT on Mauna Kea, and who do not want that telescope in their environment, would be profoundly affected, in a very recognizable way, and in a way that is adverse. Tr. 01/25/2017, V.30 at 35.	<u>See responses to proposed findings of fact 603 and 607 above.</u>
609	84	The review process is supposed to help identify these kinds of impacts so that decisions can be made to lessen this kind of encumbrance. Tr. 01/25/2017, V.30 at 110.	<u>See responses to proposed findings of fact [601a], 603 and 607 above.</u>
610	84	Documents prepared in support of the TMT CDUA should have had a better analysis of where Native Hawaiian cultural practitioners were living and conducting cultural practices, and where viewplanes of the proposed TMT would intersect with those people and places. Tr. 01/25/2017, V.30 at 111-112.	<u>See responses to proposed findings of fact [601a], 603 and 607 above.</u>
611	84	The CDUA underestimates the visual impact of the project (and former telescopes) on cultural practitioners, particularly in part stating, “there is no evidence suggesting that the presence of the existing observatories has prevented or impacted (emphasis added) those [observances and rituals/traditional customary] practices” (CDUA page 4-7). Ex. B.12a at 2.	<p>Misleading. Partial quotation. In his cited direct testimony, Prof. Mills selectively quotes from the CDUA. The full sentence states:</p> <p>“Further, while the introduced elements associated with existing observatories may have had an effect on the perceived quality of the observances conducted, or may have caused some practitioners to conduct their observances further away from the vicinity of the observatories, there is no evidence suggesting that the presence of existing observatories has prevented or impacted those practices.” Ex. R-1 at 4-7. The sentence prior also states the</p>

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			following: “The majority of the areas within the MKSR where observances and rituals are believed to occur would not be affected by the Project.” <u>Id.</u>
612	84	Subsequent sections of the CDUA (4.2.2 through 4.2.6) emphasize physical impacts to tangible resources but failed to adequately recognize adverse effects caused by the altered setting referred to in the accepted OEQC <i>Guidelines for Assessing Cultural Impacts</i> . Ex. B.12a at 2 citing B.12c.	<u>See</u> response to proposed finding of fact 603 above.
613	84	Professor Mills noted that the map included with the CDUA application was cropped from the version prepared by Pacific Consulting Services, Inc. (PCSI) to limit presentation to an even smaller implied “Area of Potential Effect.” Ex. B.12a at 2.	<u>See</u> response to proposed finding of fact 603 above. Prof. Mills did not submit any evidence or authority to suggest that the “Area of Potential Effect” that he refers to in his testimony applies to the consideration of a CDUA. Prof. Mills also admitted that he did not read Kilakila ‘O Haleakala, which affirmed that BLNR may focus its analysis on the permitted land use within the context of a specific area within a Conservation District designated for similar uses – e.g., the Astronomy Precinct. Tr. 1/25/17 at 147:21-24. The map – Figure 4.1 of Page 4-2 of the CDUA – identifies the historic properties that are within or near the Astronomy Precinct.
614	84	For a project of this magnitude and visibility around the island, Professor Mills found this limited presentation and discussion of cultural impacts inadequate. Ex. B.12a at 2. Even in view of mitigation measures taken in the TMT project design and studies of	<u>See</u> response to proposed finding of fact 613 above.

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		visual impacts in the environmental review process, Professor Mills opined that the CDUA inadequately acknowledges the broad range of adverse effects to traditional and customary practices that will be caused by this significant construction project in the summit region. Ex. B.12a at 2.	
615	84	In regard to mitigation consisting in locating the TMT on the northern plateau, Professor Mills stated, “the viewplane issue changes when you consider [that] large communities every day will see it.” Tr. 01/25/2017, V.30 at 39: 7-9.	<u>See response to proposed finding of fact 606 above.</u>
616	85	Those standing at the base of Pu‘u Lilinoe may receive a benefit to the TMT northern plateau site, but that site may affect a much larger number of people in a particular community. Tr. 01/25/2017, V.30 at 39:9-16.	<u>See response to proposed finding of fact 606 above.</u> This proposed finding of fact is entirely speculative also.
617	85	This was not evaluated as part of the cultural impact assessment process and there are things in the decision making process concerning the TMT location that were overlooked. Tr. 01/25/2017, V.30 at 39: 15-18.	<u>See response to proposed finding of fact 606 above.</u> See UH-TIO FOF ¶¶775-795; WDT Hayes at 2-17 (a substantial viewplane analysis was conducted from culturally significant areas and around the island of Hawaii).
618	85	However, how the process of evaluation for cultural appropriate behavior gets established is incredibly difficult in a colonized world where one of the major ways where the process gets set up is through something like the Office of Mauna Kea Management and Kahu Ku Mauna. Tr. 01/25/2017, V.30 at 30:17-25.	Not credible. Prof. Mills’ testimony is not credible for all the reasons already stated.
619	85	Further, for the CDUA to determine that there would be no effect on archeoastronomy, it would need to have a full understanding of the cultural values of those shrines through extensive discussion with cultural practitioners who may have cultural knowledge of how those shrines should be used. Tr. 01/25/2017, V.30 at 83: 1-11.	Not credible. Prof. Mills’ testimony is not credible for all the reasons already stated.

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620	85	<p>Ms. Aloua testified that Native Hawaiian cultural practitioners were not consulted regarding conclusions made by SHPD staff and Pat McCoy of two find spots on Mauna Kea. Without consulting with Native Hawaiian cultural practitioners the sites were not determined nor had the potential to be determined as historic properties making it convenient to bulldoze and continue the TMT project. Tr. 2/15/2017 vol.36 at 106-110.</p>	<p>The documentation of both CSH 1 and CSH 2 was disclosed and extensively discussed in Appendix A to the AIS for the TMT Project, Ex. R-5, Appx. G. Notably, the Flores-Case Ohana do not dispute the findings that CSH 1 and CSH 2 are not historic properties. They do not dispute that CSH 1 is most likely a modern structure and that CSH 2 is a natural geological feature that only appeared to have been man-made. Ex. R-5, Appx. G at 39.</p>
621	85	<p>Ms. Aloua testified that conclusions made in the AIS that determined CSH 1 and CSH 2 as Find Spots were made without consulting traditional cultural practitioners. Ex. B.24a at 1-2.</p>	<p><u>See response to proposed finding of fact 620 above.</u></p>
622	85	<p>Upon closer examination of CDUA Figure 4.1 (p. 4-2) when compared to Figure 5.17 (Ex. A-55 at 5-59 AIS, Vol. 1.), both attributed to PSCI, as well as Figure 2.9 (Ex. B.40 at 2-52, CMP CRMP.), it is very apparent that information in CDUA Figure 4.1 has been manipulated and altered to downplay and reduce the significance of historic properties and cultural resources within the vicinity of the proposed location of the TMT. Ex. B.021, B.02m, B.02n. Ex. B.02a at 13. Ex. R-1/B.30 at 4-2, CDUA.</p>	<p>Consistent with the Hawai‘i Supreme Court’s decision in <i>Kilakila ‘O Haleakalā v. Bd. of Land and Natural Resources</i>, 138 Hawai‘i 383, 382 P.3d 195 (2016), Figure 4.1 of the CDUA identifies the Historic Properties that are within the Astronomy Precinct. It also identifies those Historic Properties that are in the vicinity of the other TMT Project areas. Finally, it identifies the Historic Properties in the culturally significant area of Pu‘u Poliahu and Pu‘u Wekiu.</p> <p>Figure 5.1 to the Archaeological Inventory Survey for the Astronomy Precinct in the Mauna Kea Science Reserve was attached as Appendix I Vol. III of the FEIS. See Ex. R-5. The FEIS is part of the record in this case and was identified as an exhibit by UHH.</p>

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			<p>Consequently, there was no attempt to mislead or eliminate Figure 5.1 from the record in this CCH. Instead, as noted above, Figure 4.1 of the CDUA represents or depicts the specific area to be considered by BLNR (as approved in <u>Kilakila ‘O Haleakalā</u>) in deciding whether to grant the CDUA.</p> <p>Ex. B.30 was not received into evidence.</p>
623	86	<p>CDUA Figure 4.1 has been cropped to exclude the historic properties and cultural sites located directly north of the Astronomy Precinct. Ex. R-1/B.30 at 4-2, CDUA. Ex. B.02a at 13.</p>	<p><u>See response to proposed finding of fact 622 above.</u></p>
624	86	<p>In CDUA Figure 4.1, SIHP site numbers were eliminated from sites located in right corner of this figure. Ex. R-1/B.30 at 4-2, CDUA. Ex. B.02a at 13.</p>	<p><u>See response to proposed finding of fact 622 above.</u></p>
625	86	<p>In CDUA Figure 4.1, locations and numbers of all cultural resources were eliminated from this figure. Ex. R-1/B.30 at 4-2, CDUA. Ex. B.02a at 13.</p>	<p><u>See response to proposed finding of fact 622 above.</u></p>
626	86	<p>Figure 5.1 in the Pacific Consulting Services Inc. (PCSI) AIS (Exhibit B.02m) includes sites that were not noted in Figure 4.1 of the CDUA. Tr. 01/25/2017, V.30 at 77-80.</p>	<p><u>See response to proposed finding of fact 622 above.</u></p>
627	86	<p>Rather than simply reproducing the map from the PCSI report, a decision was made to remove the find spots and zoom into the specific footprint of the TMT, and consequently many fewer sites are represented in the CDUA map, despite the fact that PCSI is cited as the source of the map. Tr. 01/25/2017, V.30 at 96: 10-20.</p>	<p><u>See response to proposed finding of fact 622 above.</u></p>
628	86	<p>In order to assess TMT impacts on viewplanes and shrines, the CDUA could not approach this as a mathematical problem of size or height. Tr. 01/25/2017, V.30 at 82.</p>	<p>The credible and substantial evidence in the record establishes that an extensive analysis of viewplanes was conducted in connection with the TMT Project. <u>See UH-TIO FOF ¶¶775-</u></p>

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			795; WDT Hayes at 2-17.
629	86	A full understanding of why the shrines were built and where you would be standing when you were observing them was needed to answer questions of potential effect. Tr. 01/25/2017, V.30 at 82.	The Flores-Case Ohana cite to Prof. Mills' testimony in support of this proposed finding of fact. Prof. Mills' testimony was not credible as detailed in this response. <u>See response to proposed finding of fact 629 above.</u>
630	86	The TMT CDDA (Exhibit R-1) contained inaccurate and misleading statements that cultural activities have not been associated with a specific historic property in or near the Project Area. Tr. 01/19/2017, V. 27 at 60.	Not credible. Dr. Abad's testimony is not credible as already set forth throughout this response.
631	86	Another example of a lack of comprehensive assessment concerns the significance of hundreds of shrines on Mauna Kea, which has been referred to as a ring of shrines. Tr. 01/19/2017, V. 27 at 134-35. There has not been adequate study to address the relationship of all of these shrines and relative to the undertaking. <i>Id.</i> at 135: 11-14.	The Flores-Case Ohana did not present any credible evidence to support their claim that the “ring of shrines” would be impacted by the TMT Project. Dr. Abad, who they rely on for this proposed finding of fact, could not even identify where the “ring of shrines” is located on Mauna kea. By their own proposed finding of fact claiming inadequate studies and information, the Flores-Case Ohana concede that their beliefs on the alleged relationships between shrines are therefore speculative.
632	86	Applicant failed to provide any witness in this cch associated with Cultural Surveys Hawai‘i, Inc. to substantiate the TMT site specific archaeological survey, report, and findings.	UHH, as the applicant, can satisfy its burden under HAR § 13-5-30(c) through oral or documentary evidence. HRS § 91-10(1). UHH was not required to produce a witness to substantiate every document it moved into evidence in the CCH. Indeed, Petitioners and Opposing Intervenors moved into evidence

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			numerous exhibits that were not substantiated by a witness. Moreover, the Flores-Case Ohana could have subpoenaed someone from Cultural Surveys Hawaii. They chose not to.
633	87	Information in the CDUA regarding the cultural resources and historic properties within the vicinity of the TMT project is attributed to Pacific Consulting Services Inc. ("PCSI") who had actually done the general Archaeological Inventory Survey ("AIS") for the Mauna Kea Science Reserve and Astronomy Precinct and not the TMT site specific archaeological survey, report, and findings. Ex. B.02a at 12-13. Tr. 12/12/16 vol 18 at 110 – 111.	Not in dispute. This proposed finding of fact also contradicts the Flores-Case Ohana's claim that the CDUA failed to consider potential impacts throughout the Mauna Kea Science Reserve.
634	87	Applicant failed to provide any creditable witness associated with PCSI to substantiate the completeness and accuracy of the information in Sect. 4 Cultural Resources of the CDUA.	See response to proposed finding of fact 632 above.
635	87	Applicant presented witness Mr. Richard Nees, senior archaeologist of PCSI on 4/3/17. Tr. 4/3/17 vol. 12 at 9.	Not in dispute.
636	87	Mr. Nees stated that he was <u>not</u> familiar with and had <u>not</u> seen the CDUA (also referred to as Exhibit A-1 and R-1) prior to this cch. Tr. 4/3/17 vol. 12 at 70-71, 99-100.	Misleading. Presented out of context. Mr. Nees was not offered to testify as to the CDUA. Mr. Perry White was offered and did testify to the CDUA.
637	87	Upon cross-examination, Mr. Nees disclosed that the majority of his WDT was not his own and instead it was based upon a template given to him by Sara Collins. Tr. 4/3/17 vol. 12 at 71-74.	Upon questioning by the Hearing Officer, Mr. Nees affirmed under oath that everything stated in his direct testimony is true. Tr. 12/5/16 at 7:15-8:17.

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638	87	<p>Mr. Nees affirmed that it was another archaeological firm, not PCSI, that did the TMT study that would have done the analysis of the potential impact of the project upon all the sites within a Historic District. Tr. 4/3/17 vol. 12 at 85.</p>	<p>Citation does not support proposition. There is no transcript from 4/3/17.</p> <p>In <u>Kilkila</u>, the Hawai‘i Supreme Court, <u>inter alia</u>, affirmed that the BLNR, in considering the approval of a CDOA, may focus its analysis on the permitted land use within the context of a specific area within a Conservation District designated for similar uses – e.g., the Astronomy Precinct. The Flores-Case Ohana do not address <u>Kilkila</u> in their proposed findings of fact and conclusions of law. Mr. Flores also admitted on cross-examination that he never read <u>Kilkila</u>.</p> <p>Inaccurate/False as demonstrated in response to the following proposed findings of fact.</p>
639	87	<p>Based upon an extensive review and examination of the CDOA, personal observations and experiences, it was determined that significant parts of the CDOA Sect. 7 Visual Impact including the Visual Impact Technical Report (“VITR”) are flawed with inaccuracies and are incomplete. Ex. B.02a at 13-15.</p>	<p>The credible and substantial evidence in the record establishes that an extensive analysis of viewplanes was conducted in connection with the TMT Project. See UH-TIO FOF ¶¶75-795; WDT Hayes at 2-17. Based on the extensive analysis performed, it was determined that “the TMT Observatory will be visible from roughly 14 percent of the island area.” Ex. R-3 at 3-86. “[F]rom nearly all this area existing observatories are [already] currently visible.” <u>Id.</u> “The new area where the TMT Observatory will be visible and where currently none of the existing observatory can be seen is approximately 1.2 percent of the area of the</p>

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			<p>island. Using the 200 U.S. Census average household size of 2.75 people for the County of Hawaii, 72 people live in this new area.” <u>Id.</u> at 3-101.</p> <p>The TMT Observatory will also not be visible from the culturally significant areas of Pu‘u Lilinoe, Pu‘u Wekiu, and Lake Waiau. Ex. C-18.</p>
640	87	Prof. Flores personally testify that he has observed the visual impacts of the existing telescopes during various times of the day and from various locations from the districts of Kohala, Hāmākua, Hilo, and Kona. Ex. B.02a at 13.	<p>Unsupported/Unsubstantiated. The credible and substantial evidence in the record establishes that an extensive analysis of viewplanes was conducted in connection with the TMT Project. See UH-TIO FOF ¶¶775-795; WDT Hayes at 2-17. Based on this extensive analysis, it was concluded that the TMT Project will not have a substantial adverse impact on the visual resources of Mauna Kea. See WDT Hayes at 21-23. Other than the biased and unsupported testimony of Mr. Flores, the Flores-Case Ohana did not provide any actual or independent evidence to contradict the extensive visual impact analysis performed for the TMT Project. The Flores-Case Ohana fails to provide any credible evidence to support their claims of inaccuracies in the extensive visual impact analysis performed for the TMT Project.</p>
641	87	The visual impact of the TMT is a significant reason why this	See response to proposed finding of fact 640

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		project doesn't meet the HAR § 13-5-30(c) criteria. Ex. B.02a at 13.	<u>See response to proposed finding of fact 640 above.</u>
642	88	<p>Upon closer examination of the CDUA, it is very evident that information presented is inaccurate as noted below:</p> <ul style="list-style-type: none"> • “...the TMT Observatory dome will be a reflective aluminum-like finish, similar to that of the Subaru observatory.” Ex. R-1/B.30 at 7-9, CDUA. • “...the aluminum-like exterior finish was selected over white and brown because the aluminum-like finish reflects the colors of the sky and ground, which helps the dome blend into its setting and reduces the visual impact...” Ex. R-1/B.30 at 7-9, CDUA. • TMT is not visible from Mauna Kea Summit Ex. R-1/B.30, Table 7.5 at 7-8, CDUA. • “...its visual impact is less than significant.” Ex. R-1/B.30 at 2-27, CDUA. <p>Ex. B.02a at 13.</p>	<u>See response to proposed finding of fact 640 above.</u>
643	88	<p>The CDUA inaccurately depicts the reflective qualities of TMT dome in the following figures:</p> <ul style="list-style-type: none"> • Figure 1.7: Preliminary Architectural Renderings Ex. R-1/B.30 at 1-16 to 1-17, CDUA. • Figure 7.5: TMT Observatory, Aluminum-Like Finish – “Binocular” View from Waimea w/o Snow Ex. R-1/B.30 at 7-10, CDUA. • Figure 7.8: Simulation of the TMT Observatory from Near Keck Observatory Viewing North Ex. R-1/B.30 at 7-12, CDUA. <p>Ex. B.02a at 14.</p>	<u>See response to proposed finding of fact 640 above.</u>
644	88	The CDUA inaccurately compares the dome shape of the TMT	<u>See response to proposed finding of fact 640</u>

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		observatory with the cylinder shape of the Subaru observatory which are significantly different. Due to the extremely different shapes of the TMT and Subaru observatories, the reflective qualities are also extremely different. Instead, the TMT dome is similar to the Gemini Observatory dome. Ex. B.02o; Ex. B.02a at 14.	above.
645	88	The proposed aluminum-like coating would actually be more visible due to the reflective sunlight and would not reflect the sky or ground to reduce the visual impacts as implied. Ex. B.02a at 14.	<u>See response to proposed finding of fact 640 above.</u>
646	88	The use of the aluminum-like finish for the TMT dome does not adhere to the Design Guidelines in the <i>2000 Master Plan</i> as it would <u>not</u> blend into the landscape, but would instead be more reflective and visible from distances near and afar. Ex. B.37 at XI-6.	<u>See response to proposed finding of fact 640 above.</u>
647	88-89	Prof. Flores, he has attested to the fact based upon his personal observations of the observatory domes at various times of the day from various vantage points on the summit, from his front yard, along the coast, and at numerous other areas, the aluminum-like coating of the Gemini Observatory dome does not reflect the sky or ground. The primary reason for this is that the dome shape causes the sunlight to reflect directly back into your eyesight. Likewise, its practically impossible for the ground to be reflected due to the dome shape as the ground terrain would have to be located above the height of the dome. It's for these reasons that renderings and Figures 7.5, and 7.8 in the CDUA, created through a software program, inaccurately depicts the reflective nature of the TMT dome. Ex. B.02p; B.02r; B.02q; B.02a at 13 – 14.	<u>See response to proposed finding of fact 640 above.</u>
648	89	The Applicant has failed to provide any concrete evidence such as a genuine photo of an observatory dome similar in shape to the TMT dome such as the Gemini Observatory dome that actually demonstrates it could reflect the sky or ground. Instead, the CDUA	<u>See response to proposed finding of fact 640 above.</u>

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		includes inaccurate photo simulations of these non-existent reflective qualities. Ex. B.02a at 13 – 14. R-1 at 1-16, 1-17, 7-10, 7-12.	
649	89	Information in the CDUA is inaccurate regarding TMT's visual impacts. In Figure 7.5 in the CDUA, Line No. 16 states that the TMT is <u>not</u> visible from the Mauna Kea Summit. However, based upon site visits during the first and present och, the TMT observatory would be clearly visible from Pu'u Kūkahau'ula (also considered the Mauna Kea Summit) as evidenced by the red balloon demonstration. Ex. B.02a at 14.	See response to proposed finding of fact 640 above. The TMT Project will not be visible from Pu'u Wekiu, which is the summit of Mauna Kea. See Ex. C-18; Tr. 10/26/16 at 161:25-162:7 (Hayes testifying that the TMT Observatory will not be visible from Pu'u Wekiu). Pu'u Wekiu is located 1.16 miles from the proposed TMT Observatory site. See Ex. C-18.
650	89	The CDUA falsely downplayed the adverse visual impacts of the proposed TMT observatory and its non-compliance with the Hawai'i County General Plan (2005). Ex. B.02s.	See response to proposed finding of fact 640 above.
651	89	The CDUA (Sect. 7.1.1) only briefly mentions one goal (b) and disregards the other two goals (a & c) in the Hawai'i County General Plan (Natural Beauty section) as outlined below especially since the TMT project is <u>not</u> capable of meeting these goals:	See response to proposed finding of fact 640 above.
		<i>7.2 GOALS</i>	
		(a) Protect, preserve and enhance the quality of areas endowed with natural beauty, including the quality of coastal scenic resources.	
		(b) Protect scenic vistas and view planes from becoming obstructed.	
		(c) Maximize opportunities for present and future generations to appreciate and enjoy natural and scenic beauty. Ex B.02s at 7-2.	
652	89	The CDUA fails to assess the adverse visual impacts of the proposed TMT observatory upon Native Hawaiian traditional and customary practices. Ex. R-1/B.30, CDUA.	See response to proposed finding of fact 640 above.
653	89	Ms. Aloua testified that her traditional and customary practices are negatively impacted by visual impacts (e.g., telescopes, roads) and above.	See response to proposed finding of fact 640 above.

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654	89	<p>noises (e.g., cars, traffic). Tr. 2/15/17 vol. 36 at 95.</p> <p>BLNР issued Minute Order No. 2 that stated Board members met on February 26, 2016 and conducted a “full discussion of the issue”, and took action <u>outside of a regular meeting in which the public was excluded in violation of HAR § 13-1-5 and HRS Chapter 92,</u> delegated the conduct of the contested case hearing to a hearing officer, and confirmed that the chairperson was authorized to engage the services of a hearing officer pursuant to law. There aren’t any records of this item being included on the agenda of any meeting in order for BLNР to take any appropriate Board action on this matter. MO No. 2 at 1; HAR § 13-1-5. HRS Chapter 92.</p>	<p>Unsupported/Unsubstantiated. Under HRS § 92-6(a)(2), the “adjudicatory function exercised by a board and governed by sections 91-8 and 91-9 [regarding contested cases]” are exempt from the Sunshine Law, HRS Chapter 92. The Flores-Case Ohana does not provide any legal authority to support their claim that BLNР’s adjudicatory functions in connection with the CCH is subject to the Sunshine Law of HRS Chapter 92.</p> <p><u>See response to proposed finding of fact 654 above.</u></p>
655	90	<p>BLNР issued Minute Order No. 36 that was <u>undated</u> to provide notice that “the Board now declares and affirms that conservation district use permit HA-3568 is void.” Similar to Minute Order No. 2, BLNР took action <u>outside of a regular meeting in which the public was excluded in violation of HAR § 13-1-5. MO No. 36 at 1-2; HAR § 13-1-5.</u></p>	<p><u>See response to proposed finding of fact 654 above.</u></p>
656	90	<p>BLNР issued several minute orders through this cch in this same manner. Minute Order Nos. 2, 4, 14, 36, 48, 49, 52.</p>	<p>Inaccurate/False. There is no evidence, and the Flores-Case Ohana does not cite to any, to support this proposed finding of fact.</p>
657	90	<p>It appears that DLNR staff did not take a ‘hard look’ at significant aspects of this CDUA in the initial submittal. Instead, information was cut and pasted in their entirely directly from the Application’s submittals and included in their OCCL Staff Report that was submitted to Board members for their consideration. Ex. R-7/B.70; R-1; R-3; B.02a at 11.</p>	<p>Moreover, the Hearing Officer and therefore BLNР clearly has taken and is taking a hard look at the CDUA given the 44 days of hearing testimony and the hundreds of exhibits admitted into evidence.</p>
658	90	<p>The BLNР should have required the Applicant to update and</p>	<p>Ex. B. 70 was not received into evidence.</p> <p>Unsupported/Unsubstantiated. The Flores-Case</p>

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		resubmit their application to be heard at a Board meeting and required public hearing to ensure due process of law. B.02a at 11.	Ohana does not cite to any legal authority to support this proposed finding of fact. The Hawaii Supreme Court remanded this matter back to BLNR for a contested case hearing.
659	90	BLNR chose to move ahead with the original application and failed to address its deficiencies without having it come before the BLNR for a new and proper hearing since CDUP HA-3568 was vacated by the Hawai'i State Supreme Court's decision in <i>Mauna Kea Anaina Hou, et al. v. Board of Land and Natural Resources, et al..</i> Ex. B.02a at 3-4.	Inaccurate/False. The Flores-Case Ohana does not cite to any legal authority to support this proposed finding of fact. The Hawaii Supreme Court did not reach the merits of the CDUA and remanded this matter back to BLNR for a contested case hearing.
660	90	The Applicant has <u>not</u> reviewed and updated the CMP and subplans that were required to be completed by April 2014 in order to be in compliance with the rules of the Conservation District. Ex. B.02a at 4 – 5.	Inaccurate/False. UHH, as already covered throughout these responses, has and is following the guidelines and framework of the CMP in its management of Mauna Kea. The Flores-Case Ohana also does not cite to any specific “rules of the Conservation District” that they claim have been violated.
661	90	In addition, DLNR should have revisited and updated their staff report in this matter. B.02a at 11.	Unsupported/Unsubstantiated. The Flores-Case Ohana does not cite to any legal authority to support this proposed finding of fact. Mr. Flores' testimony of what he believes should have been done is clearly biased.
662	90	The OCCL Staff Report dated February 25, 2011 also inaccurately states, “The University is seeking the permit on behalf of the non-profit TMT Observatory Corporation.” Ex. R-7/B.70 at 13.	Unsupported/Unsubstantiated. The Flores-Case Ohana does not cite to any legal authority that required a new CDUA or OCCL Staff Report to be prepared because of the transition from TMT Corporation to TIO.
663	91	The OCCL Staff Report states, “The Corporation was founded in 2003 by the California Institute of Technology, the University of California, and the Association of Canadian Universities for	<u>See</u> response to proposed finding of fact 662 above.

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		Research in Astronomy. The National Astronomical Observatory of Japan (NAOJ) joined as a Collaborating Institution in 2008; the National Astronomical Observatories of the Chinese Academy of Sciences joined as an Observer in 2009; and India joined as an Observer in June 2010.” Ex. R-7/B.70 at 13.	
664	91	The OCCL Staff Report doesn’t include any reference to TIO. Ex. R-7/B.70 at 13.	See response to proposed finding of fact 662 above.
665	91	The CDUA reaffirms that the CMP, subplans, and TMT Management Plan are intended to fulfill the purpose of the Conservation District concerning the TMT project. In addition to this and in conjunction with one another, these plans are intended to fulfill the requirements for the Resource subzone, specifically management plan requirements under Exhibit 3 to the Conservation District Rules.” Ex. R-1/B.30 at 2-3 to 2-4.	Ex. B.30 was not received into evidence, otherwise not in dispute.
666	91	In addition to a board permit, astronomy facilities also require an approved management plan according to HAR §13-5-24(c). Ex. R-1/B.30 at 2-2.	Ex. B.30 was not received into evidence. UHH/TIO address the “approved management plan” condition in the UH-TIO FOF/COL. See UH-TIO COL ¶¶143-164.
667	91	The TMT Management Plan is intended to provide site-specific information and be an extension of the CMP and subplans and together (CMP, subplans and TMT Management Plan), these documents are intended to fulfill the purpose of the Conservation District concerning the TMT project. Ex. R-1/B.30 at 2-3, CDDUA.	Ex. B.30 was not received into evidence, otherwise not in dispute.
668	91	In addition to this and in conjunction with one another, these plans are intended to fulfill the requirements for the Resource subzone, specifically management plan requirements under Exhibit 3 to the Conservation District Rules. Ex. R-1/B.30 at 2-3 – 2-4, CDDUA.	Ex. B.30 was not received into evidence, otherwise not in dispute.
669	91	In addition, the CMP and its subplans provide the primary framework for managing the development and operation of astronomy and other uses within the UH management areas on Mauna Kea. Ex. R-1/B.30 at 2-4, CDDUA.	Ex. B.30 was not received into evidence, otherwise not in dispute.

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670	91	The outdated CDUA states, “If approved, the TMT Observatory Corporation will implement the TMT Management Plan.” Ex. R-1/B.30 at 2-2, CDUA.	<p>The Flores-Case Ohana argues that the CDUA is outdated or should have been amended or resubmitted because it references the TMT Corporation, not TIO. The Flores-Case Ohana is incorrect as UHII was not required to resubmit the CDUA, reapply, or otherwise amend the CDUA to reflect the creation of TIO or the change from TMT Corporation to TIO. See UH-TIO COL ¶¶420-426; UH-TIO FOF ¶¶206-207.</p>
671	91-92	The outdated TMT Management Plan states, “On behalf of the TMT Observatory Corporation, the University of Hawai‘i is seeking a Conservation District Use Permit (CDUP) from the State of Hawai‘i Board of Land and Natural Resources (BLNR) that will allow the construction, operation, and eventual decommissioning of the Thirty Meter Telescope (TMT) Observatory within an area below the summit of Mauna Kea that is known as “Area E.”” Ex. R-1/B.30 at S-2, TMT Management Plan, CDUA.	<p>See response to proposed finding of fact 670 above. Ex. B.30 was not received into evidence.</p>
672	92	The TMT Management Plan included only a Draft Historic Preservation Mitigation Plan (included as an appendix in Exhibit B). Ex. R-1/B.30 at 2-4, CDUA.	<p>Unsupported/Unsubstantiated. See response to proposed finding of fact 531 above.</p>
673	92	This TMT Management Plan was also developed to work in conjunction with the BLNR approved Comprehensive Management Plan (CMP) and the four CMP subplans: (1) Cultural Resources Management Plan; (2) Natural Resources Management Plan; (3) Decommissioning Plan for the Mauna Kea Observatories; and (4) Public Access Plan for the UH Management Areas on Mauna Kea. The CMP and subplans are the primary management documents governing activities and uses in the UH Management Areas on Mauna Kea. These documents have and will continue to guide the	<p>Ex. B.30 was not received into evidence.</p> <p>Ex. B.30 was not received into evidence, otherwise not in dispute.</p>

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		TMT Project development. Ex. R-1/B.30 at S-2, TMT Management Plan, CDUA.	
674	92	In the CDUA, it states that “the TMT Management Plan fulfills the requirements of the Conservation District Rules, HAR § 13-5, particularly Exhibit 3 regarding management plan requirements, and therefore, this Plan together with the CMP and subplans fulfill the purpose of the Conservation District concerning the TMT project and the UH Management Areas.” Ex. R-1/B-30 at 2-1, CDUA.	Ex. B.30 was not received into evidence, otherwise not in dispute.
675	92	OCCL Administrator, Mr. Lemmo, testified that OCCL’s administrative rules, HAR section 13-5 were revised on or around August 11, 2011. Tr. 2/27/17, V.41 at 232.	The TMT Project satisfies both the old and revised administrative rules regarding “approved management plan[s].” See UH-TIO COL ¶¶143-164
676	92	Mr. Lemmo, testified that OCCL’s revised administrative rules were not in place when CDUA HA-3568 was submitted to OCCL.	See response to proposed finding of fact 675 above.
677	92	Tr. 2/27/17, V.41 at 232.	See response to proposed finding of fact 675 above.
678	92	Mr. Lemmo, testified that OCCL would require an application to follow HAR section 13-5, Management Plan Requirements if the application was submitted after August 12, 2011. Tr. 2/27/17, V.41 at 233, 235.	Unsupported/Unsubstantiated. Page 4-1 of the TMT Management (App. B to R-1] defines “Not Applicable” as follows: “Management actions that would not directly implicate the TMT Project. In general, these actions apply to OMKM and/or other entities and enactment of these management actions would not affect TMT operations. These management actions are not discussed below.”
		Table 4.1: Management Actions Detailed in the CMP and Subplans	None of the management actions identified by

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		<p>the Flores-Case Ohana are mis-identified. For example, CR-1 discusses an action to be taken by Kahu Ku Mauna. Clearly, “[this] action[] appl[ies] to OMKM and/or other entities.” Likewise, CR-2 talks about an application for designation of the summit region of Mauna Kea as a TCP. This action also applies to OMKM and other entities – i.e., SHPD. Outside of the biased and general testimony of Mr. Flores, the Flores-Case Ohana fails to present any evidence that the management actions identified as “Not Applicable” in the TMT Management Plan are misidentified.</p>	<p><u>See</u> response to proposed finding of fact 678 above.</p>									
679	92-93	<p>In the table below is a sampling of some of the significant management actions that were inaccurately identified by OMKM as being “Not Applicable” to the TMT project and that were <u>not</u> previously completed by the Applicant. Ex. R-1, App. B at 4-1 to 4-9, CDUAs.</p>	<table border="1"> <thead> <tr> <th>CMP</th><th>Subplans</th><th>Management Action</th></tr> </thead> <tbody> <tr> <td>CR-1</td><td>NRMP 4.4.2 CRMP 4.3.3 PAP 4.2, 5.2, 6.1</td><td>Kahu Kū Mauna shall work with families with lineal and historical connections to Mauna Kea, cultural practitioners, and other Native Hawaiian groups, including the Mauna Kea Management Board’s Hawaiian Culture Committee, toward the development of appropriate procedures and protocols regarding cultural issues</td></tr> <tr> <td>CR-2</td><td>CRMP 2.4.2.1</td><td>Support application for designation of the summit region of Mauna Kea as a Traditional Cultural Property, per the</td></tr> </tbody> </table>	CMP	Subplans	Management Action	CR-1	NRMP 4.4.2 CRMP 4.3.3 PAP 4.2, 5.2, 6.1	Kahu Kū Mauna shall work with families with lineal and historical connections to Mauna Kea, cultural practitioners, and other Native Hawaiian groups, including the Mauna Kea Management Board’s Hawaiian Culture Committee, toward the development of appropriate procedures and protocols regarding cultural issues	CR-2	CRMP 2.4.2.1	Support application for designation of the summit region of Mauna Kea as a Traditional Cultural Property, per the
CMP	Subplans	Management Action										
CR-1	NRMP 4.4.2 CRMP 4.3.3 PAP 4.2, 5.2, 6.1	Kahu Kū Mauna shall work with families with lineal and historical connections to Mauna Kea, cultural practitioners, and other Native Hawaiian groups, including the Mauna Kea Management Board’s Hawaiian Culture Committee, toward the development of appropriate procedures and protocols regarding cultural issues										
CR-2	CRMP 2.4.2.1	Support application for designation of the summit region of Mauna Kea as a Traditional Cultural Property, per the										

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		National Historic Preservation Act of 1966, as amended, 16 U.S.C. 470 et seq. in consultation with the larger community.	
CR-10	CRMP 4.3.1 PAP 5.2	Develop and implement a historic property monitoring program to systematically monitor the condition of the historic district and all historic properties, including cultural sites and burials.	
CR-13	CRMP 4.3.2, 4.3.7	Develop and implement a burial treatment plan for the UH Management Areas in consultation with Kahu Kū Mauna Council, MKMBI's Hawaiian Culture Committee, the Hawai'i Island Burial Council, recognized lineal or cultural descendants, and SHPD.	
NR-15	NRMP 4.1	Conduct baseline inventories of high-priority resources, as outlined in an inventory, monitoring, and research plan.	
NR-17	NRMP 4.1.2.3	Conduct research to fill knowledge gaps that cannot be addressed through inventory and monitoring.	
NR-18	NRMP 4.1.4.5	Develop geo-spatial database of all known natural resources and their locations in the UH Management Areas that can serve as baseline documentation against change and provide information essential for decision-making.	
EO-7	NRMP 4.4.2 CRMP 5.3 PAP 5.2, 6.3, 6.8	Continue and increase opportunities for community members to provide input to cultural and natural resources management activities on Mauna Kea, to ensure systematic input regarding planning, management, and operational decisions that affect natural resources, sacred materials or places, or other ethnographic resources with	

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		FLU-2	NRMP 4.3.3.1		
					<p>which they are associated.</p> <p>Develop a map with land-use zones in the Astronomy Precinct based on updated inventories of cultural and natural resources, to delineate areas where future land use will not be allowed and areas where future land use will be allowed but will require compliance with prerequisite studies or analysis prior to approval of Conservation District Use Permit.</p>
680	94				<p>The CMP clearly articulates a need, during the project design review process, for OMKM to provide clear facility planning guidelines to project proposers that address siting and design considerations, and to enforce them, so that proposed facilities result in minimal impacts to cultural and natural resources and the astronomical qualities of the Science Reserve. Many of these considerations have been developed in the <i>2000 Master Plan</i>, although there are additional management needs set forth in the CMP. Adequate bonding may be required for to ensure site restoration. (emphasis added) Ex. B.28 at 7-56, CMP.</p> <p>It is important to maintain compatibility and consistency of recommendations between the <i>2000 Master Plan</i> and the CMP, to ensure that identified facility needs and designs are consistent with the overarching management plan put forth in the CMP (see Section 7.2.1). Ex. B.28 at 7-58, CMP.</p>
681	94				<p>The Flores-Case Ohana conveniently omits from this proposed finding of fact the next sentence on page 7-58 of Ex. B.28: “Section XI of the 2000 Master Plan provides design guidelines to <u>direct development</u> for both renovations of existing facilities and new</p>
682	94				<p>There are two aspects of facility planning location and design that need to be considered in order to protect cultural and natural resources. Location refers to the siting of facilities, while design refers to characteristics of the physical structure, and both of these must be directed at minimizing impacts to resources. Ex. B.28 at 7-56, CMP.</p>

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		<p>construction in a manner that would <u>integrate development into the summit environment.</u>” (Emphases added). Consequently, the 2000 Master Plan and CMP contemplated the integration of new development on Mauna Kea.</p> <p><u>See UH-TIO FOF ¶¶170-178 for a detailed discussion regarding the design review process.</u></p>	<p>Ex. B.30 was not received into evidence. The TMT Project has complied with FLU-1. Page 4-23 of the TMT Management Plan states: “TMT has complied with the design guidelines presented in the 2000 Master Plan and the Master Plan Project Review/Approval Process. This Process consisted of several steps designed to ensure compliance with the Master Plan. TMT completed the pre-design, schematic design, and design development review phases and has been subjected to review by the design review committee which includes volunteer community professions and the MKMB. Construction documents would be submitted by OMKM following the granting of a CDUP and prior to construction activity.” Ex. R-1, Appx. B. at 4-23.</p> <p><u>See UH-TIO FOF ¶¶170-178 for a detailed discussion regarding the design review process.</u></p> <p><u>See UH-TIO FOF ¶¶170-178 for a detailed discussion regarding the design review process.</u></p>
683	94	<p>The TMT Management Plan affirms that CMP management action FLU-1, “Follow design guidelines presented in the <i>2000 Master Plan</i>”, are “Directly Applicable” to the TMT Project. Ex. R-1/B.30 at 4-8, TMT Management Plan, CDDA.</p>	
684	94	<p>Section XI of the <i>2000 Master Plan</i> provides design guidelines to direct development for both renovations of existing facilities and</p>	

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		new construction in a manner that would integrate development into the summit environment. Topics addressed include: facility siting, scale, height and width, color, surface texture and material, roofs, fences, roadways and parking. Ex. B.28 at 7-56, CMP.	
685	94-95	Section XI of the 2000 Master Plan outlines the following General Review Standards:	<p>See UH-TIO FOF ¶¶I 70-178 for a detailed discussion regarding the design review process.</p> <p>In reviewing plans and specifications the DRC, Mauna Kea Management Board and UH will be concerned with both the overall design concept, design details and overall impact. General concerns will include whether the proposed project:</p> <ul style="list-style-type: none"> • Conforms to the goals and objectives of the Mauna Kea Master Plan; • Is consistent with the Design Guidelines in the plan; • Will not negatively impact adjacent facilities or uses; • Promotes resource conservation and sustainability; • Relates harmoniously to the surrounding landscape. • Does not add significantly to negative cumulative impacts. <p>Plans found to be inconsistent with the Master Plan concepts and objectives shall be rejected. Major variations from development standards shall also be rejected. Determinations of consistency shall be at the sole discretion of the University of Hawai‘i.</p> <p>Ex. B.37 at XI-7 to XI-9, 2000 MP.</p>
686	95	The 2000 Master Plan also lists criteria to assist in the selection of an appropriate site for a ground-based telescope with a primary mirror of 25 to 50 meters in diameter (generically referred to as a “Next Generation Large Telescope”, or NGLT in the 2000 Master Plan). Ex. R-1/B.30 at 1-6, CDUA.	<p>Ex. B.30 was not received into evidence, otherwise not in dispute.</p>

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687	95	<p>The <i>2000 Master Plan</i> identifies Area E as the preferred location for an NGLT. Area E is located approximately 1/2-mile northwest of the nine existing optical/infrared observatories located near the summit. Ex. R-1/B.30 at 1-6, CDU.A.</p>	<p>Ex. B.30 was not received into evidence, otherwise not in dispute.</p>
688	95	<p>The proposed siting of the TMT observatory is not in compliance with the Design Guidelines and criteria stipulated in <i>the 2000 Master Plan</i> as noted below. Ex. B.37 at IX-22 to IX-23, 2000 MP.</p>	<p>Inaccurate/False. The Flores-Case Ohana concede in proposed findings of fact 686 and 687 that the 2000 Master Plan specifically identified Area E as the preferred location for a Next Generation Large Telescope ("NGLT"). The 2000 Master Plan evaluated each of the Design Guidelines/Siting Criteria to support its determination that Area E is the preferred location for the NGLT. See Ex. B.37 at IX-39.</p> <p>The simple fact of the matter is that the TMT Observatory is proposed to be built in the exact location that the 2000 Master Plan stipulates it should be built. The proposed siting of the TMT Observatory cannot be inconsistent or not in compliance with the 2000 Master Plan when it is being proposed to be built in the exact location that the 2000 Master Plan said it should be built.</p>
689	95	<p>The <i>2000 Master Plan</i> outlines Design Guideline No. 4. <u>Avoidance</u> of archaeological sites. There are three existing archaeological shrines within the Astronomy Precinct, and these sites must be avoided in future facility siting. In addition, any new facilities will be set back at least 200 feet from the clustered group of shrines found outside the Precinct boundary on the northern slope. Ex. B.37 at IX-23, 2000 MP.</p>	<p>See response to proposed finding of fact 688 above.</p> <p>In evaluating this criterion in relation to siting the NGLT at Area E, the 2000 Management Plan states: "The closest archaeological feature to the proposed NGLT site is a shrine located approximately 1,200 ft. to the east. For</p>

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			<p>reference, this distance is 60 times the minimum setback distance required by the Hawaii Island Burial Council for development proposed near existing burials.” Ex. B.37 at IX-39.</p> <p>Page 2-2 of the TMT Management Plan (Ex. R-1, Appx. B) states that “[t]here are no historic properties located within 200 feet of the limits of grading at the proposed TMT Observatory 13N site.” The Flores-Case Ohana does not present any evidence contradicting this statement nor do they present any evidence that the TMT Observatory does not comply with this specific guideline.</p>
690	95	The 2000 Master Plan outlines Design Guideline No. 5. Minimum visual impact from significant cultural areas. Views from the pu‘u and archaeological sites will be respected in the siting of future facilities. The location of new facilities will avoid interference with the visual connections between the major pu‘u and the shrine complexes. (emphasis added) Ex. B.37 at IX-22, 2000 MP.	<p>See response to proposed finding of fact 688 above.</p> <p>In evaluating this criterion in relation to siting the NGLT at Area E, the 2000 Management Plan states: “The siting of the NGLT respects views from the pu‘u and archaeological sites. The NGLT is located to the northwest of the summit ridge, which does not interfere [sic] with the visual connections between the major pu‘u and the shrine complexes.” Ex. B.37 at IX-39.</p> <p>The credible and substantial evidence in the record establishes that an extensive analysis of</p>

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			<p>viewplanes was conducted in connection with the TMT Project. See UH-TIO FOF ¶¶775-795; WDT Hayes at 2-17. Indeed, as testified to by Mr. Hayes, this in-depth viewplane analysis included viewplanes from “culturally significant areas” such as the summit of Mauna Kea, Lake Waiau, Pu‘u Poliahu, the northern plateau, and the northern ridge of Kukahau‘ula. See WDT Hayes at 15-17. For example, the viewplane analysis from Pu‘u Poliahu concluded that the TMT Observatory, because of its location, lower elevation, and its reduced height, would not block the view of Maui from the northern ridge or Pu‘u Poliahu. See <u>id.</u> at 17; see also Ex. C-19; UH-TIO FOF ¶785.</p> <p>The Flores-Case Ohana failed to present any credible evidence to dispute the above.</p>
691	95		<p>OMKM, charged by the Applicant with ensuring compliance with and implementation of the <i>2000 Master Plan</i>, failed to enforce Design Guideline No. 5 stipulated in the 2000 Master Plan. Due to the proposed placement and the massive size of the TMT observatory amongst the shrine complexes on the northern plateau, it will definitely interfere with the visual connections between the major pu‘u such as Pu‘u Kūkāhau‘ula and Pu‘u Poliahu and the hundreds of shrines at this particular elevation. The CDUA and survey reports have failed to address this impact. Ex. B.28 at 3-9, CMP; Ex. B.02a at 15-17.</p>
692	96		<p>The <i>2000 Master Plan</i> outlines Design Guideline No. 6. <u>Avoid or minimize views from Waimaea, Honoka‘a and Hilo. Sites for</u></p> <p>In evaluating this criterion in relation to siting the NGLT at Area E, the 2000 Management</p>

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		proposed new facilities will maximize the use of the existing topography to shield views from the downslope communities. Prominent sites along the ridges or pu‘u will not be selected for new development of astronomy or other research and education facilities. Ex. B.37 at IX-23, 2000 MP.	Plan states: “The existing topography shield views of the NGLT from Hilo, however, the facility will be partially visible from Waimea and Honoka‘a. The proposed design guidelines for the NGLT will minimize the visual impacts of the facility, as discussed previously.” Ex. B.37 at IX-39. <u>See responses to proposed findings of fact 688 and 690 above; see also UH-TIO FOF ¶¶775-795 for a detailed discussion of the viewplane analysis that was conducted and that concluded that the TMT Project will not have a substantial adverse impact on the visual resources of Mauna Kea.</u>
693	96	OMKM, charged by the Applicant with ensuring compliance with and implementation of the <i>2000 Master Plan</i> , failed to enforce Design Guideline No. 6 stipulated in the <i>2000 Master Plan</i> . From Waimea, Honoka‘a, and other areas, views of the TMT observatory will be another prominent eyesore and ‘pimple’ on this sacred landscape. A large population of Native Hawaiians as well as other residents and visitors in these areas will be impacted with this adverse visual impact. Ex. B.28 at 3-9, CMP. Ex. B.02a at 15-17.	Inaccurate/False. The TMT Observatory is proposed to be built in the exact location that the 2000 Master Plan stipulates it should be built. Its proposed siting is not inconsistent and is in compliance with the 2000 Master Plan. <u>See response to proposed finding of fact 692 above.</u>
694	96	The <i>2000 Master Plan</i> outlines Design Guideline No. 7. <u>Close to roads and existing infrastructure.</u> Sites for proposed new development will be selected close to the existing roadways to minimize the amount of disturbance to the natural terrain. Utilities and communications service to new sites will be extended along the existing roadway routes to minimize disturbance. Ex. B.37 at IX-23, 2000 MP.	In evaluating this criterion in relation to siting the NGLT at Area E, the 2000 Management Plan states: “The NGLT is close to the existing SMA service roadway, which will minimize the amount of disturbance to the natural terrain. Utilities and communications service to the NGLT site will be extended along the existing

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			<p>roadway routes to minimize disturbance.” Ex. B.37 at IX-39.</p> <p>The vast majority of the Access Way route to the TMT Observatory will follow and go over an existing single-lane, 4-wheel drive road. <u>See</u> UH-TIO FOF ¶¶254 and 309; <u>see also</u> UH-TIO FOF ¶¶255 (regarding utilities and the measures that will be taken to minimize their potential impact).</p>
695	96	<p>OMKM, charged by the Applicant with ensuring compliance with and implementation of the <i>2000 Master Plan</i>, failed to enforce Design Guideline No. 7 stipulated in the <i>2000 Master Plan</i>. Instead of using the existing roads within the SMA area, this project intends to cut a 800 feet road segment and installation of underground utilities through the side of Pu‘u Kūkāhau‘ula, a <i>wēkiu</i> bug habitat, Traditional Cultural Property, and designated State Historic Property (SIHP #50-10-23-21438). Ex. B.28 at 3-9, CMP. Ex. B.37 at 4-3.</p>	<p>Inaccurate/False. The TMT Observatory is proposed to be built in the exact location that the 2000 Master Plan stipulates it should be built. Its proposed siting is not inconsistent and is in compliance with the 2000 Master Plan. <u>See</u> response to proposed finding of fact 694 above.</p> <p>The option selected for the placement of the TMT Access Way was the one recommended by SHPD of the DLNR to minimize adverse effects on Kūkāhau‘ula. Page 3-9 of Ex. B to Ex. A-1/R-1.</p> <p>The impact to <i>wēkiu</i> bugs resulting from construction of the TMT Access Way will be less than significant. The total population of the species will not be significantly impacted by the disturbance of a small area of habitat along the TMT Access Way. Ex. A-3/R-3 at 3-70 to</p>

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696	96	The TMT is classified as a Type IV. Next Generation Large Telescope (NGLT), “A single optical/IR telescope of 25 m. aperture or greater. This is currently only being discussed in the astronomy community and there is a 50 percent possibility that this facility may be developed in the next 20 years.” Ex. B.37 at IX-27, 2000 MP.	3-77; <u>see also</u> UH-TIO FOF ¶¶481-490 (detailed discussion regarding wēkiu bugs).
697	96	Figure IX-16 in the 2000 Master Plan illustrates the height and size scale of potential new observatories in comparison with existing facilities. Ex. B.37 at IX-28, 2000 MP.	Citation does not support the proposition. The 2000 Master Plan does not discuss the TMT Project.
698	96	Figure IX-16 illustrates the proposed NGLT based upon the Design Guidelines with a height drastically lower than existing observatories. Ex. B.37 at IX-28, 2000 MP.	The Flores-Case Ohana concedes in proposed finding of fact 696 that the NGLT was “only being discussed in the astronomy community” at the time of the 2000 Master Plan. Indeed, at the time there was only “a 50 percent possibility that this facility may be developed in the next 20 years.” The discussion regarding the design of the NGLT at the time of the 2000 Master Plan was merely conceptual. Regardless, the conceptual design guidelines in the 2000 Master Plan were incorporated into the design of the TMT Observatory. <u>See</u> UH-TIO FOF ¶¶241.
699	96-97	Figure IX-16 illustrates the proposed NGLT makes the visual impact considerations very important in the facility siting and design. The NGLT would not be appropriately located at Mauna Kea’s summit ridge, due to the major earthwork requirements that would disturb wēkiu bug habitat and the visibility of a large telescope placed atop the ridge. Ex. B.37 at IX-37, 2000 MP.	The 2000 Master Plan found that the siting of the NGLT on Mauna Kea’s summit ridge would not be appropriate. The 2000 Master Plan did not state that it could not be done. <u>See</u> UH-TIO FOF ¶¶166 (noting that the TMT Observatory could theoretically be built on the summit ridge with extensive grading).

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700	97	<p>In addition, telescope engineers have indicated that wind forces acting on the structure are expected to be severe and problematic. To minimize potential obscuration of existing observatories, the potential site for this facility must also be located in an area that is distant from the prominent topography at the summit ridge and nearby <i>pu'u</i>. Ex. B.37 at IX-37, 2000 MP.</p>	<p><u>See response to proposed finding of fact 699 above.</u></p>
701	97	<p>The <i>2000 Master Plan</i> stipulates strict design guidelines will dictate the size and color of the NGLT. The preliminary design concept proposed for the NGLT employs a unique sliding dome mirror enclosure with a sub-grade foundation, as shown in Figure IX-21. The lower half of this observatory will be built below grade to minimize the apparent height and mass of the facility. The facility shown in the concept has a 30-m. mirror, with a dome shaped and colored to simulate a small <i>pu'u</i> to blend well with the surrounding landscape. Ex. B.37 at IX-37, 2000 MP.</p>	<p><u>See response to proposed finding of fact 697 above.</u></p>
702	97	<p>Figure IX-21 in the <i>2000 Master Plan</i> illustrates the NGLT observatory design with a dome shaped and colored to simulate a small <i>pu'u</i> to blend well with the surrounding landscape. Ex. B.37 at IX-38, 2000 MP.</p>	<p><u>See response to proposed finding of fact 697 above.</u></p> <p>The proposed design for the TMT Observatory is based on balancing the technical requirements of the observatory and the goal of minimizing adverse impacts of the project. Tr. 1/3/17 at 18:2-23:1, 258:8-262:5. Specifically, the reflective aluminum-like coating was chosen to minimize the visual impacts of the dome; throughout the majority of the day, this coating will reflect the surroundings of the TMT Observatory. UH-TIO FOF ¶244. The TMT Observatory design is therefore consistent with and in compliance with the 2000 Master</p>

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			Plan. Tr. 01/04/17 at 14:2-10.
703	97	To mitigate the visual impact of the telescope, requirements will be imposed to color the telescope enclosure to blend into the surrounding site. Ex. B.37 at IX-39, 2000 MP.	<p><u>See response to proposed finding of fact 702 above.</u></p> <p>The 2000 Master Plan also recognized that “[t]he technology for coloring telescope enclosures has yet to be applied in practice.” Ex. B.37 at IX-39. The Flores-Case Ohana did not present any evidence that the coloring of telescope enclosures has been or can be done.</p>
704	97	This design measure will serve to significantly diminish the visual impact of the telescope from both on-mountain and off-mountain locations. Coloring of the telescope enclosure and other strategies are included in the Design Guidelines. Ex. B.37 at IX-39, 2000 MP.	<p><u>See response to proposed finding of fact 703 above.</u></p>
705	97	The purpose of the design guidelines in the 2000 Master Plan is to direct development in a manner which integrates it into the summit environment. The design guidelines would apply to both renovations of existing facilities as well as new construction. Ex. B.37 at XI-4, 2000 MP.	<p>Not in dispute to the extent the document speaks for itself. <u>See also</u> UH-TIO FOF ¶¶170-178 for a detailed discussion regarding the design review process</p>
706	97	The proposed TMT project is NOT in compliance with many of the design guidelines in the 2000 Master Plan as noted in the examples of non-compliance guidelines noted below. Ex. B.37 at XI-4 to XI-6, 2000 MP.	Inaccurate/False as demonstrated in the responses to the above proposed findings of fact.

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707	97-98	<p>Facility Siting: Siting decisions are the first steps in design and often determine the range of options that are available. Siting of various facilities are identified in the Physical Planning Guide. New facilities are sited generally. Individual instrument locations are not specified. The NGLT and facilities on new site locations may require adjustments after viewing tests and archaeological inventory level surveys are conducted. The following siting criteria should be considered early in project development:</p> <ul style="list-style-type: none"> • Where known archaeological, cultural and natural resources exist the following sequence of evaluation is to be followed: 1) avoid disturbance of the resource, 2) minimize impact if unavoidable and 3) mitigate impact as needed. Natural resources include biological populations and geomorphological features and geochemical resources. • Set sufficient buffer distances between the facility and the cultural or natural resource. Buffer distances should be assessed individually based on the feature and the proposed facility. • Site facilities to minimize visual impact from both the summit areas and offmountain locations such as Hilo, Hāmākua and Waimea. • Cluster facilities for proximity to roadway and utility lines. This should reduce site development costs and minimize visual impacts and unnecessary disturbances of the natural environment. 	<p>Not in dispute to the extent the document speaks for itself. See also UH-TIO FOF ¶170-178 for a detailed discussion regarding the design review process</p>

Ex. B.37 at XI-4 to XI-5, 2000 MP.

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708	98	<p>Surfaces, Textures and Material: Surfaces, textures and material used for construction in the Science Reserve should seek to blend the facility into the landscape. Selection criteria are as follows:</p> <ul style="list-style-type: none"> • As much as possible, surfaces should be non-reflective in the visible spectrum to minimize glare and visibility from distant areas. <p>Ex. B.37 at XI-6, 2000 MP.</p>	<p>Not in dispute to the extent the document speaks for itself. See also UH-TIO FOF ¶¶170-178 for a detailed discussion regarding the design review process</p>
709	98	<p>The 2000 Master Plan outlines the Design Guideline for <i>Surfaces, Textures and Material</i>. The use of the aluminum-like finish for the TMT dome is <u>not</u> adhering to the Design Guidelines in the Master Plan (p. XI-6) as it would <u>not</u> blend into the landscape, but would instead be more reflective and visible from distances near and afar.</p> <p>Ex. B.37 at XI-6, 2000 MP.</p>	<p>Inaccurate/False. Not credible. Unsupported/Unsubstantiated.</p> <p>The TMT Observatory complies with the 2000 Master Plan. See response to proposed finding of fact 702 above; UH-TIO FOF ¶¶244 and 246. Moreover, the Flores-Case Ohana failed to present any credible evidence to support the claim that the TMT Observatory will not blend into the landscape. Mr. Flores is not an engineer and lacks the requisite expertise to opine on this issue.</p>
710	98	<p>Colors: Color plays an important part in visibility and thermal impacts. Color choices should seek to minimize the visual impact of the facility from surrounding areas. While it is understood that the mitigation of thermal impacts on observatory functions is an important consideration, domes should be colored to aid in masking and blending facilities into the natural landscape. The following strategies are to be employed:</p> <ul style="list-style-type: none"> • For off-ridge facility enclosures use colors and patterns such as the mottled brown tones of the surrounding lava landscape. 	<p>Incomplete. The Flores-Case Ohana conveniently omits the other bullet points under the “Colors” section. See Ex. B.37 at XI-5 and XI-6. For example, one of the strategies to be employed is to color concrete utility pull boxes to blend with the surrounding lava landscape. See <u>id.</u> Consistent with this strategy, the TMT Project is, <u>inter alia</u>, camouflaging existing utility pull boxes. The TMT Project is also shading the pavement in certain areas to blend</p>

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		Ex. B.37 at XI-5 to XI-6, 2000 MP.	in with the surroundings. See e.g., UH-TIO FOF ¶909.
711	99	<p>Scale: Facilities should be scaled to minimize their impact on the natural landscape of the summit area. As much as practical, telescope enclosures should be designed to minimally accommodate the instrument. Where the size of the enclosure is necessarily large, strategies should be considered to blend it into the surrounding landscape. The following are some strategies for reducing apparent scale:</p> <ul style="list-style-type: none"> • Bury portions of the structure as practicable. • Place berms against the building to reduce visible areas. • Shape superstructures using natural and curved forms which blend into the environment rather than orthogonal geometries. • Color surfaces to blend into the landscape. • Design exterior articulations and changes in color and texture to break up large continuous surfaces. • Use materials that blend into the natural landscape. 	<p>Not in dispute to the extent the document speaks for itself. See also UH-TIO FOF ¶¶170-178 for a detailed discussion regarding the design review process</p>
712	99	Ex. B.37 at XI-5, 2000 MP.	<p>In Sect. 2.1 Purpose of Conservation District of the CDUA, it inaccurately states that “[t]he University of Hawai‘i and TMT Observatory Corporation are both committed to management measures that will achieve these purposes.” Ex. R-1 at 2-1, CDUA.</p> <p>Unsupported/Unsubstantiated. The Flores-Case Ohana presents no evidence to support their claim that the statement in the CDUA is inaccurate.</p>
713	99	The Applicant states further that they would met Criteria 1 of HAR §13-5-30(c) through the implementation of the CMP and subplans that “provide management strategies designed to preserve and protect the resources located in the UH Management Areas” and that “the University is committed to their implementation”.	Not in dispute.

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714	99	The TMT Observatory Corporation has also developed a TMT Management Plan (provided as Exhibit B) that adopts the approach, goals, objectives, findings, recommendations, and management strategies and actions of the CMP and subplans in their entirety.	Not in dispute.
715	99	In addition, the TMT Management Plan fulfills the requirements of the Conservation District Rules, HAR § 13-5, particularly Exhibit 3 regarding management plan requirements, and therefore, this Plan together with the CMP and subplans fulfill the purpose of the Conservation District concerning the TMT project and the UH Management Areas.	Not in dispute.
716	99	The design of the TMT project itself is consistent with the CMP and subplans. Ex. R-1 at 2-1, CDDUA.	Not in dispute.
717	100	Dr. Osorio testified that the TMT, particularly in addition to existing telescopes on Mauna Kea, is not consistent with the purpose of the conservation district. Tr. 05/11/2017, V. 26 at 24:10-19.	Unsupported/Unsubstantiated. Not credible. Prof. J. Osorio's testimony is contradicted by the credible and substantial evidence demonstrating that the TMT Project is consistent with the purposes of the Conservation District, particularly the Resource Subzone. See UH-TIO FOF ¶¶350-384; UH-TIO COL ¶¶128-142.
718	100	The Applicant states further that they would meet Criteria 1 of HAR §13-5-30(c) through the implementation of the CMP and subplans that "provide management strategies designed to preserve and protect the resources located in the UH Management Areas" and that "the University is committed to their implementation". The TMT Observatory Corporation has also developed a TMT Management Plan (provided as Exhibit B) that adopts the approach, goals, objectives, findings, recommendations, and management strategies and actions of the CMP and subplans in their entirety. In	Not in dispute.

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		addition, the TMT Management Plan fulfills the requirements of the Conservation District Rules, HAR § 13-5, particularly Exhibit 3 regarding management plan requirements, and therefore, this Plan together with the CMP and subplans fulfill the purpose of the Conservation District concerning the TMT project and the UH Management Areas. The design of the TMT project itself is consistent with the CMP and subplans. Ex. R-1 at 2-1, CDUA.	
719	100	In Sect. 2.2 Objective of Subzone of the CDUA, it states “[t]he objective of the Resource subzone is to allow development when it is accompanied by proper management that ensures sustained use of natural resources in these areas. Astronomy facilities are an identified use in the Resource subzone (see HAR § 13-5-24(c) [R3/D1]) under an approved management plan. Ex. R-1 at 2-2, CDUA.	Not in dispute.
720	100	In addition to being an identified use, as discussed throughout this CDUA, both the University and the TMT Observatory Corporation are committed to managing the natural and cultural resources throughout the UH Management Areas in a way that fulfills the objective of the Resource subzone of the Conservation District. The proposed use is consistent with the provisions of the applicable UH Management Area and site-specific management plans discussed in the following subsections. If approved, the TMT Observatory Corporation will implement the TMT Management Plan. Together with the CMP and its subplans, the TMT Management Plan will ensure the sustained use of the natural and cultural resources in the Resource subzone. This is further evidence of the proposed use's consistency with the objectives of the Resource subzone. Ex. R-1 at 2-2, CDUA.	Not in dispute.
721	100	The CMP and subplans are consistent with the purposes of the Conservation District lands and the objectives of the Resource subzone. Ex. R-1 at 2-3, CDUA.	Not in dispute.

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			Not in dispute.
722	100	<p>The activities that the TMT Observatory Corporation would carry out if the TMT project is approved and implemented are consistent with the management actions described in the CMP and subplans. This provides consistency and viability of management objectives, which include ensuring the sustained use of natural resources in the Resource subzone under HAR § 13-5-13. Ex. R-1 at 2-3, CDUAs.</p>	<p>Unsupported/Unsubstantiated. Not credible. Ms. Aloua is not credible as has already been thoroughly discussed in this response. Moreover, Ms. Aloua's testimony is contradicted by the credible and substantial evidence demonstrating that the TMT Project meets Criterion Six of HAR § 13-5-30(c). See UH-TIO FOF ¶¶868-913; UH-TIO COL ¶¶227-256.</p>
723	100	<p>Ms. Aloua testified that the TMT project will not help preserve or improve upon the natural beauty and open space characteristics of Mauna Kea. Tr. 2/15/2017 vol.36 at 42.</p>	<p>Unsupported/Unsubstantiated. Not credible. The credible and substantial evidence in the record demonstrates that the TMT Project will not utilize subdivision of land to increase the intensity of land uses in the Conservation District and therefore complies with HAR § 13-5-30(c)(7). See UH-TIO FOF ¶¶914-936; UH-TIO COL ¶¶257-272.</p>
724	101	<p>The 2000 Master Plan divided the UH Management Areas into two areas, the Natural/Cultural Preservation Area, which encompasses 10,760 acres, and the Astronomy Precinct, which is 525 acres. Ex. 28 at 7-56, CMP.</p>	<p>Mr. Flores conceded that he is not a land use expert and therefore his opinions on the issue are not credible, especially given the testimony of Prof. Callies, one of the foremost recognized experts in planning and land use in Hawai‘i. See Tr. 1/30/17 at 223:2-4 (Flores admitting</p>

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725	101	Figure IX-13 in the 2000 Master Plan defines the Astronomy Precinct of approximately 525 acres with the Northern, Eastern, Southern, and Western boundaries within the Mauna Kea Science Reserve. Ex. 37 at IX-20 to IX-21, 2000 MP.	<u>See response to proposed finding of fact 724 above.</u>
726	101	The 2000 Master Plan designates future development in the Astronomy Precinct and identifies Areas A through F within it as preferred sites. Ex. R-1/B.30 at 1-6, CDUAs.	<u>See response to proposed finding of fact 724 above.</u>
727	101	Figure 1.3: <i>Mauna Kea Summit Region: Existing Facilities, Features, & Future Development Areas</i> in the CDUAs identifies Areas A through F. Ex. R-1/B.30 at 1-4, CDUAs.	<u>See response to proposed finding of fact 724 above.</u>
728	101	UH's actions of subleasing their general lease has resulted in the intensity of the development and land use on Mauna Kea. Ex. B.02a at 17-18.	<u>See response to proposed finding of fact 724 above.</u>
729	101	The act of subleasing these lands resulted in the "division" of a greater parcel into smaller parcels. Ex. B.02a at 17-18.	<u>See response to proposed finding of fact 724 above.</u>
730	101	In other words, that act is a "subdivision" which is defined by the BLNR's own rules as "a division of a parcel of land into more than one parcel." HAR § 13-5-2.	<u>See response to proposed finding of fact 724 above.</u>
731	101	Webster's Merriam Dictionary defines "division" as something that "divides, separates or marks off," as in a "border." (See, http://www.merriam-webster.com/thesaurus/division , accessed November 14, 2011)	<u>See response to proposed finding of fact 724 above.</u>
732	101	To further amplify this subdivision of land into smaller parcels, the existing subleases also include maps and legal descriptions along with metes and bounds defining their subdivided parcels. Ex. B.02a	<u>See response to proposed finding of fact 724 above.</u>

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733	101	at 17-18.	Likewise, the proposed TMT Sublease also explicitly identified an additional proposed subdivision of the premises and easement areas through maps and legal descriptions along with metes and bounds. ³ Ex. B.02f.
734	102	The act of subdividing the 8.7 acres of land out of 11,288 acres for TIO's use, occupancy, and construction work is deemed to be a special form of "land use" that would further intensify the existing land uses and development on Mauna Kea. However, this aspect has not been addressed in the CDUA. Ex. B.02a at 17-18.	<u>See response to proposed finding of fact 724 above.</u>
735	102	According to Mo'oinanea, she has shared that the existing observatories have created obstructions and hazards for those who reside on Mauna a Wākea. Ex. B.21a at 4 (Case WDT).	Not credible.
736	102	Mo'oinanea stated that she and others feel that these developments are blocking their views and the areas they used to occupy. In addition, those who constructed these observatories did <u>not</u> get permission from them to build on their home, nobody said they could. Ex. B.21a at 4 (Case WDT).	Not credible.
737	102	Moreover, it blocks the <i>piiko</i> (portal) to connect with Ke Akua (the Creator) and 'aumākua. Also, it might change and affect the weather patterns on the mountain and in the surrounding areas below such as Waimea. They wished that the observatories were never there and they don't like the roads either. In regards to people coming up to the mountain, it is not too bad. If they had to choose between observatories vs. people coming up, they would choose the people way over the observatories. Ex. B.21a at 4 (Case WDT).	Not credible.
738	102-103	Likewise, the proposed new observatory would adversely impact Mo'oinanea and others who dwell on the summit. The importance of Mauna a Wākea to her is that it's her home and she was born and raised there. She wants to have children up there without any more observatories. For Poliahu, it has impacted her sleeping area and it	Not credible.

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		<p>is where she and others connect with Ke Akua. It is so high, the point on the top that they put their hands up to connect to the heavens. They wish to have no other observatories on the mountain for if they continue to build, some might have to move off mountain. Others would not come up there because they had to move. What we do not know is if it will snow anymore if Poliahu is off the mountain and if she is able to make it snow from somewhere else? The importance of Mauna a Wākea a to her is that it's her home and she was born and raised there. She wants to have children up there without any more observatories. The importance of Mauna a Wākea to her is that it's her home and she was born and raised there. She wants to have children up there without any more observatories. Ex. B.21a at 4 (Case WDT).</p>	<p>Unsupported/Unsubstantiated. Not credible.</p> <p>Case does not explain how she will be prohibited from continuing her practices if the TMT Project is developed within the Astronomy Precinct on Mauna Kea. Case testified that she did not start conducting her practices on "the top of Mauna Kea[,] including the northern plateau, until 2010. Tr. 1/11/17 at 228:1-19. During this entire time since 2010, Case has been able to conduct her practices with observatories being present on Mauna Kea. <u>Id.</u> at 229:10-25.</p> <p>Case has also failed to establish that she has any practices within the area E location site of the TMT Observatory. She claims to conduct practices on the northern plateau. However, the</p>
739	103	<p>In the same way that Case has experienced this loss of hula traditions tied to place over the years, she sees that it would happen again if the Thirty Meter Telescope is built in the upper region of our Mauna. Ex. B21.a at 5 (Case WDT).</p>	

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			<p>TMT Observatory will only occupy five acres of the northern plateau. See UH-TIO FOF ¶783 (noting that the TMT Observatory will only take up five of 2,000 acre Northern Plateau). There is also no reliable probative and substantial evidence that her or her referenced practices are within the bundle of rights protected by article XII, section 7 of the Hawaii State Constitution.</p>
740	103	<p>The traditional practice of ceremonies including chanting, dancing, honoring at these places would be impacted by the building of the eighteen stories. The place with its pristine form would be no more, it would be under concrete along with an enormous visual eyesore, the place would have been desecrated, destroyed. The <i>kanaka maoli</i> and those who share these practices physically and spiritually would not be able to recite and perform the hula traditions there because of the overwhelming sense of despair and guilt that we would be consumed with. The people cannot stand by and witness the desecration, destruction and construction and then conduct the same ceremonies we have done for years on the mountain.</p> <p>For Case, it would be akin to forfeiting her right to be there if she was unsuccessful in protecting the mountain. She could not return there to chant, dance and sing in the same manner. She would not be able to pray in the way that she have been led to do. A connection would be lost between the ancestral realm and the human realm. Information shared and knowledge passed down ancestrally would be lost. Interaction between the mountain and the human would be diminished like a loss of a family member, and the death of a way of life. Ex. B.21a at 6 (Case WDT).</p>	<p>Not credible.</p>

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741	103	<p>In 2013, Mo‘oinanea stated to Case’s daughter Kapulei that she could not resonate with even the intention of building the massive Thirty Meter Telescope, the actions of the attempts to begin construction in this sanctified place were too much and she was leaving Lake Waiau because of the disturbance on the upper regions. Mo‘oinanea said to Kapulei that she would leave a sign and that Pua would know that she had left the lake and it would be an indication of how the physical landscape would be altered, beyond the obvious physical construction impacts. At the beginning when she had first spoken to Case and Kapulei, she stated that if built, everything would change because all of the ancestral guardians and caretakers would leave the mountain and their environmental forms would leave as well. And at this time, she showed them all what that meant. Mo‘oinanea left the land and the Lake Waiau dried up to almost nothing. (see Exhibit B.21g) And the change shook everyone. It had never been that dry before in the time of historic records. Ex. B.21a at 7 (Case WDT).</p>	<p><u>See response to proposed finding of fact 739 above.</u> The TMT Observatory is located 1.42 miles away from Lake Waiau. <u>See</u> Ex. C-18. The credible and substantial evidence presented in this CCH clearly demonstrated that the TMT Project will have no significant adverse impacts on Lake Waiau. <u>See</u> UH-TIO FOF ¶¶799-801, 806, 823.</p>
742	103-104	<p>The customary ceremonies that had previously occurred at the Lake were halted, ceremonies as dictated in the past, collection of water for ceremonies, placing umbilical cord of those connected to the mountain stopped, purification and cleansing ceremonies as documented by Queen Emma on her historic journey there could not be continued. Mo‘oinanea demonstrated for her people, the descendants of the mountain, what it would be like if the TMT were built, traditions would end there because the climate would change, the landscape would be affected. That would pertain to more than Lake Waiau, it would pertain to the entire mountain. Ex. B.21a at 7 (Case WDT).</p>	<p><u>See response to proposed finding of fact 741 above.</u> Evidence was also presented in the CCH that Case continues to conduct practices at Lake Waiau. <u>See</u> Ex. C-45 and C-45a.</p>
743	104	<p>While in prayer on Mauna Kea, LaRose has felt the heavy, oppressive weight of the observatories on her own chest and also</p>	<p>Not credible. Ms. LaRose’s testimony was based on her feelings and entirely speculative.</p>

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		felt the blockage they created like giant rocks damming a river, the river being the flows of energy around and above Mauna Kea. Ex. B.25a at 1.	Her testimony was also not scientifically verifiable or logically credible and should be given no weight. See e.g., UH-TIO FOF ¶566.
744	104	LaRose asks all who are considering in allowing the building of the proposed new observatory to take into consideration the rights and needs of the sentient life of Mauna Kea, including the forces of nature such as Mo‘oinanea, guardian of Lake Waiau. Along with others, LaRose states in her WDT, that she has have felt and seen her. The feelings Mo‘oinanea conveyed to LaRose were of concern and sadness for the mountain and uncertainty of what will happen to Lake Waiau. The concern is also for our own consequences and what we don’t know of the impact that will be created on all life forms on the mountain. Ex. B.25a at 1.	<u>See response to proposed finding of fact 743 above.</u>
745	104	LaRose testified on the impacts of building the TMT on Mauna Kea, “You’ll feel it in your own body, and there will be a lot lost.” Tr. 1/19/17 Vol. 27At 219.	<u>See response to proposed finding of fact 743 above.</u>
746	104	LaRose testified, “of course, those telescopes are a major impact on this mountain, just the presence of them, whether or not you’re for or against them. It’s a physical alteration that is huge.” Tr. 1/19/17Vol. 27at 225.	<u>See response to proposed finding of fact 743 above.</u>
747	104	When asked if the building of the thirty meter telescope would in any way block access to the kind of information (ancestral information) that was available through those stones on the northern plateau at the proposed site of the Thirty Meter Telescope LaRose indicated that it would actually bulldoze them over. Tr. 1/19/17Vol. 27at 227.	<u>See response to proposed finding of fact 743 above.</u>
748	104	If the pohaku at the proposed TMT site was destroyed, it would cause LaRose great sorrow because she knows there is a lot of knowledge there waiting. Tr. 1/19/17 Vol. 27 at 237.	<u>See response to proposed finding of fact 743 above.</u>

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749	104	Dr. Abad testified that Mauna Kea has the highest significance of a wahi kupuna and “[t]he same degree that these wahi kupuna hold, that degree of impact will . . . reverberate throughout our lahui if anything were to destroy its integrity.” Tr. 01/19/2017, V. 27 at 57:1-5.	Not credible. Dr. Abad’s testimony was not credible for all the reasons already discussed in this response.
750	104-105	Irreparable harm caused by the TMT Project will include physical harm to sites in the immediate area; relationships of sites to one another, intangibles such as the feeling associated with sites and the cultural practices associated, the akua. Psychological harms caused by desecration of a site considered sacred cannot be mitigated. Tr. 01/19/2017, V. 27 at 72, 81.	<u>See</u> response to proposed finding of fact 749 above. This proposed finding of fact is also contrary to the credible and substantial evidence in the record demonstrating that there are no historic properties or sites located within 200 feet of the limits of grading at the proposed TMT Observatory site. See <u>supra</u> .
751	105		<u>See</u> responses to proposed findings of fact 739 and 749 above.

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752	105	Dr. Osorio states that the “TMT will add to the significant, sustained and adverse affects that already resulted from the previous 13 telescopes on the mountain.” Ex. B07 at 3.	Not credible. See UH-TIO FOF ¶¶229, 763, 864, 951.
753	105	Dr. Osorio commented on the approval of multiple industrial telescope projects in the Mauna Kea summit region: “If one wants to have confidence in government, if one wants to have confidence in political society, then decisions should be made and approvals should be given in a way that makes sense that is rational. I don’t believe that this is – when you – on the face of it, it doesn’t look rational to me.” Tr. 05/11/2017, V. 26 at 25.	<u>See response to proposed finding of fact 752 above.</u>
754	105	Dr. Osorio states that the TMT would have a “devastating” impact on Hawaiian emotional, mental and physical health. Dr. Osorio goes on to state that “it is especially offensive for the TMT, building a monstrosity on a sacred place, to claim a cultural connection with the Native people because astronomy looks at the same stars as our voyager ancestors.” He points out that there have been extensive efforts on the part of those who find the TMT culturally, environmentally, and legally offensive to protect Mauna Kea, and that evidence of this can be found in “a few hundred reasons in the form of men and women who braved the elements and the possibility of arrest last year in order to proclaim their commitment to the mountain.” Ex. B07 at 3.	<u>See response to proposed finding of fact 752 above.</u>
755	105	Dr. Osorio states that approval of the TMT by the DLNR evidences “the state’s failure to protect vulnerable communities and willingness to ignore inconvenient regulations in its rush to approve sizable capital projects,” as well as “Hawaiians’ increasing impatience with the state’s management of our national lands.” Ex. B07 at 3.	<u>See response to proposed finding of fact 752 above.</u>
756	106	As a historian, Dr. Osorio compares the movement to protect Mauna Kea with the magnitude of the civil rights movement. He states, “So this brings to mind much more the civil rights	<u>See response to proposed finding of fact 752 above.</u>

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		<p>movement, where you really have a broad base of people, not just Hawaiians but people from many different communities who participate because they consider this an issue of involving really an important statement about being human.” He goes on to point out that this movement to protect Mauna Kea has garnered international support: “I think that this movement has shown a tremendous -- that it has a tremendous impact on people in many, many parts of the world.” Tr. 05/11/2017, V. 26 at 59.</p>	
757	106	<p>Prof. Flores has been present at times when Poliahu has shared her concerns about the existing and proposed further desecration on the mountain. She has explicitly remarked that she does not want the existing and any new observatories on this sacred mountain. They are blocking the <i>piko</i> on the summit. If she is dislocated due to the new telescope, it might create new problems and affect the weather patterns on the mountain as well as other areas on the island. Ex. B.02a at 24 - 25, Flores WDT.</p>	<p>Not credible.</p>
758	106	<p>UH’s witness Mr. Ishibashi disclosed that the construction of the TMT on Mauna Kea would damage, deface, disfigure and mar the landscape. Tr. 12/1/2016, V. 10 at 32:4-16</p>	<p>Lack of Jurisdiction. BLNR and this Hearing Officer do not have jurisdiction to adjudicate violations of the Hawaii Penal Code. Even if they did, Petitioners’ and Opposing Intervenors’ claim of desecration fails as a matter of law. <u>See UH-TIO COL ¶392-407.</u></p>
759	106	<p>TIO’s witness Mr. Sanders admitted that based on his recommendation, the Chilean site at Cerro Quemal was dropped from the list of potential locations for the TMT Observatory because of the “cultural sensitivity” of the mountain to the Atacameños, a tribe. Tr. 01/4/2017, V. 21 at 89: 9-19.</p>	<p>Irrelevant/Inapplicable.</p>

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760	106	He states, “There were four mountains that we were considering, Cerro Tolar and Cerro Amazonas, and there were two mountains, Cerro Tolonchar and Cerro Quemal where the communities have cultural sensitivity. And based on the discussions, one of those was dropped.” Tr. 01/4/2017, V. 21 at 91: 1-7.	Irrelevant/Inapplicable.
761	106	When asked why Mauna Kea was not dropped from the list due to its sacredness to Native Hawaiians, Mr. Sanders replied, “I can’t speculate and replay history.” Tr. 01/4/2017, V. 21 at 91: 20.	Irrelevant/Inapplicable.
762	106	Noelani Goodyear-Ka‘ōpua is Associate Professor of Political Science, specializing in Native Hawaiian and Indigenous politics. One of her areas of expertise is in the politics of education, particularly Indigenous education. Ex. J-6 at 1.	Not credible. Kaopua-Goodyear’s testimony, especially as a purported expert, was not credible given her clear and demonstrated personal biases. See e.g., UH-TIO FOF ¶¶39-740. Her testimony is also directly contradicted by the credible and significant testimony of PUEO, which established that there is a need for educational opportunities and that the TMT Project will help address that need. See UH-TIO FOF ¶¶284-290.
763	106	Ms. Goodyear-Ka‘ōpua has done extensive research on and implementation of Hawaiian culture-based education, including co-founding a school and writing an academic book on Indigenous education. Ex J-6 at 1.	See response to proposed finding of fact 762 above.
764	107	She testified that constructing the TMT would be a harm to Hawaiian educational practices. She explained that ‘āina-based education and aloha ‘āina as “multiplicity of land-based literacy,” which “include observational, interpretive and expressive skills.” Tr. 2/22/17 vol 39 at p.155.	See response to proposed finding of fact 762 above.

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765	107	<p>Ms. Goodyear-Ka‘ōpua articulated how the project would impact Native Hawaiian educational initiatives, educators, and practitioners as such:</p> <ul style="list-style-type: none"> • The proposed construction of the Thirty-Meter Telescope (TMT) would substantially harm Hawaiian cultural practitioners and educators who are designing and practicing Hawaiian land-based educational initiatives. • Such practitioners and educators are trying to preserve and perpetuate kuleana relationships between Kānaka Maoli and this mauna, and the TMT would inhibit and harm such relationships. • Aloha ‘āina has been a practice of Kanaka Maoli survivance for generations, and it is based on the understanding that lands, including Mauna a Wākea, are familial kin. • Kānaka Maoli are not just related to the land but are indeed part of it. The health of kānaka and their cultural identities is directly tied to the health of the land and is thus harmed when the ‘āina is harmed. • When you modify the summit of the highest mountain, which Kānaka practitioners recognize as sacred, through the construction of a massive structure such as the TMT, you harm the ability of kānaka to fully be kānaka. You harm their ability to transmit knowledge about who they are in relation to this place to future generations. <p>Ex.J-6 at 1 - 2.</p>	<p>See response to proposed finding of fact 762 above.</p>
766	107		<p>Moreover, what impacts the ‘āina, or the environment, also impacts kanaka, or man. Especially children and youth are shaped based on the values and practices of the adults in their lives. Ex. B.06a at 3. See e.g., UH-TIO FOF ¶ 327-328, 383, 675-</p>

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			676, 836, 865. Her testimony is also directly contradicted by the credible and significant testimony of PUEO, which established that there is a need for educational opportunities and that the TMT Project will help address that need. See UH-TIO FOF ¶284-290.
767	107	As a Hawaiian educator, Dr. Kahakalau believes that Mauna Kea can and should become a local, national and international symbol of aloha ‘āina, a testimony of respect for the Hawaiian culture, and a validation of our commitment to perpetuate Hawaiian values and traditions and protect the rights of native Hawaiians. By sending a clear signal to our next generation that the protection of our environment, our earth, is more important than any other endeavor, we will set a new standard in 21st century environmental protection for the benefit of both the environment and humans. Ex. B.06a at 3.	See response to proposed finding of fact 766 above.
768	107-108		Based on the principles of Pedagogy of Aloha, building the TMT is NOT pono, or ethical, and does not demonstrate a balance of science and culture on Mauna Kea, nor a respect for Hawaiian culture, as advertised on the TMT website. Rather such desecration signifies to kanaka (native Hawaiians), kama'aina (local) and malihini (foreigner) alike that we do not value the ancient practice of aloha and mālama ‘āina and that we do not respect the inherent mana of Mauna Kea and the importance of maintaining this sacredness, by adhering to the ancient kapu of the Wao Akua. It also validates for young and old that our island resources are for sale and that when enough dollars are involved, nothing is protected from development, i.e. nothing is sacred enough. Ex. B.06a at 4.
769	108	As a 21st century educator, Dr. Kahakalau strongly supports integrating technological advances into 21st models of education. At the same time, I also resolutely maintain that these advances	See response to proposed finding of fact 766 above.

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		<p>must be ethical, meaning that furthering the search of knowledge for mankind, must not override protecting natural, cultural and spiritual resources from destruction. This view is in alignment with enlightened educators and thinkers worldwide who assert that Indigenous practices and values like aloha and mālama ‘āina can provide new ways of educating for global ecological thinking and environmental sustainability. Dr. Kahakalau proposes that Hawai‘i stands in the forefront of this movement by not allowing the construction of the TMT on sacred Mauna Kea. Ex. B.06a at 4.</p>	<p>Inaccurate/False. Not credible.</p>
770	108	<p>The Applicant knows that the visual impact of the TMT will be substantial and significant due to the dome height at nearly 190 feet and with a diameter of 216 feet. However, there aren't any actual measures that could mitigate this visual impact. Ex. B.02a at 15.</p>	<p>The visual impact of the TMT Project is thoroughly discussed in the CDDA and FEIS, among other documents. It is also extensively discussed in the UH-TIO FOF/COL. See UH-TIO FOF ¶775-795.</p> <p>The credible and substantial evidence in the record supports the following: “The TMT Project will add a visual element to the summit of Mauna Kea, but it will be one such element among many. The incremental increase in cumulative visual impact due to the TMT Project will be less than significant. Therefore, the TMT Project will not have a substantial adverse impact on the visual resources of Mauna Kea. WDT Hayes at 21-23.” UH-TIO FOF ¶795.</p>

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771	108	<p>The Applicant proposes the following non-existent mitigation measures in the CDUA to mitigate the known substantial and significant visual impact of the proposed TMT dome height at nearly 190 feet and with a diameter of 216 feet. Ex. R-1/B.30 at 1-8, CDUA.</p> <ul style="list-style-type: none"> 1. locate the TMT “north of and below the summit” 2. design the dome “to fit very tightly around the telescope” 3. to have an aluminum-like coating “that reflects the sky and reduces the visibility of the structure” <p>Ex. R-1/B.30 at 2-17, CDUA.</p>	<p>The use of mitigation measures is a universally recognized and widely adopted means of lessening otherwise adverse impacts in land use projects. Ex. C-6 (WDT Callies) at 8. The TMT Project's mitigation measures are extensively discussed in the UH-TIO FOF/COL. See UH-TIO FOF ¶¶304-330.</p>
772	108	<p>These are <u>not</u> mitigation measures for the adverse visual impacts within the Mauna Kea Summit Region Historic District upon the natural beauty and open space of the undeveloped northern plateau. Ex. B.02a at Ex. B.02a at 16.</p>	<p>Unsupported/Unsubstantiated. The Flores-Case Ohana confuse mitigation measures with elimination. Mitigation measures are adopted to lessen otherwise adverse impacts, not eliminate them. The Flores-Case Ohana provide no authority to support their claim that mitigation measures must eliminate otherwise adverse impacts.</p>
773	108	<p>The CDUA states that the “location of the TMT project is the primary impact avoidance measure” for its visual impacts. Ex. R-1/B.30 at 2-17, CDUA</p>	<p>Not in dispute. The extensive visual impact analysis conducted for the TMT Project has already been extensively discussed throughout this response.</p>
774	109	<p>In contradiction to this proposed mitigation measure, the location of the TMT on the northern plateau is actually due to the fact that there isn't any available space available on the summit. Ex. B.02a at 16.</p>	<p>Incorrect/False. The TMT Project could be built in the summit ridge area with extensive grading. Dr. McLaren testified that siting the TMT Observatory in the summit ridge area was rejected early on because of the fact that it would require extensive grading in a highly sensitive culture area. See Tr. 11/2/16 at 193:13-194:3.</p>

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775	109	UH's witness Mr. McLaren testified that it's simply out of the question to put the telescope that large on the summit ridge. 11/15/16 Tr. Vol 7: 195:3-4	Citation does not support the proposition. See response to proposed finding of fact 774 above.
776	109	In addition, even if an existing telescope site could be recycled for this project, the TMT would obstruct and impact the other existing telescopes due to its massive size and height of nearly 190 feet. Ex B.02a at 16.	See response to proposed finding of fact 774 above. Not credible. Mr. Flores lacks the requisite qualifications to opine on this issue.

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777	109	<p>The <i>2000 Master Plan</i> clearly outlines below why the TMT is proposed to be located on the northern plateau instead of on the summit due to its extremely large size and not as a reason to mitigate its adverse visual impact.</p> <p>Existing astronomy facilities require a clear line of sight to approximately 12 degrees above the horizon in a full circle. The location of proposed new facilities cannot obscure the observation function of the existing telescopes on the mountain.” Ex. B.37 at IX-22, MP.</p> <p>Future telescope redevelopment on the summit ridge will limit these facilities to a maximum height and diameter of approximately 130 feet, to limit the visual impact along the ridge. Ex. B.37 at IX-31, MP.</p> <p>In addition, telescope engineers have indicated that wind forces acting on the structure are expected to be severe and problematic. To minimize potential obscuration of existing observatories, the potential site for this facility must also be located in an area that is distant from the prominent topography at the summit ridge and nearby <i>pu'u</i>.</p>	<p>Incomplete. Misleading. Presented out of context. The 2000 Master Plan also stated that the preferred location for the NGLT is area E because it avoids archaeological sites and “respects views from the <i>pu'u</i> and archaeological sites.” Ex. B.37 at IX-39.</p> <p>Unsupported/Unsubstantiated. See response to proposed finding of fact 772 above.</p>
778	109	Ex. B.37 at IX-37, MP.	Unsupported/Unsubstantiated. See response to proposed finding of fact 772 above.
779	109	Despite the existing design of the TMT dome to fit tightly around the telescope, it still doesn't mitigate its adverse visual impact. Ex. B.02a at 16 - 17.	<p>Incorrect/False. The TMT Observatory is not inconsistent with the 2000 Master Plan, which specifically identified area E as the preferred location for a NGLT. See <i>supra</i>. Mr. Sanders</p>

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		<p>guidelines that proposed a “unique sliding dome mirror enclosure with a sub-grade foundation” that would have actually drastically reduced the height less than the nearly 190 feet of the existing design. (see Figures IX-16 & IX-21) The adverse visual impact of its massive size and height still exists and has <u>not</u> been mitigated.</p> <p>Ex. B.02a at 16 - 17. Exhibits B.02t-u).</p>	<p>of TIO testified that the TMT Observatory is consistent with and complies with the conceptual guidelines of the 2000 Master Plan. See Tr. 1/4/17 at 15:10-16.</p> <p><u>See response to proposed finding of fact 779 above.</u></p>
780	109-110	<p>Strict design guidelines will dictate the size and color of the NGLT. The preliminary design concept proposed for the NGLT employs a unique sliding dome mirror enclosure with a sub-grade foundation, as shown in Figure IX-21. The lower half of this observatory will be built below grade to minimize the apparent height and mass of the facility. The facility shown in the concept has a 30-m. mirror, with a dome shaped and colored to simulate a small <i>pu'u</i> to blend well with the surrounding landscape. Ex. B.37 at IX-21, MP.</p>	<p><u>See response to proposed finding of fact 779 above.</u></p>
781	110	<p>The other mitigation measure to have an aluminum-like coating “that reflects the sky and reduces the visibility of the structure” is also <u>not</u> true as previously discussed. This also does <u>not</u> follow the Design Guidelines of the Master Plan as it proposed a “dome shaped and colored to simulate a small <i>pu'u</i> to blend well with the surrounding landscape.” If the shape and color of the TMT design was in compliance with these guidelines, it could have actually mitigated its adverse visual impacts. Ex. B.02a at 16-17.</p>	<p><u>See response to proposed finding of fact 779 above.</u></p>
782	110	<p>Likewise, other proposed mitigation measures do nothing to directly or indirectly mitigate any of the adverse impacts of this project as noted below:</p> <ul style="list-style-type: none"> • The TMT project facilities will be furnished with items to provide a sense of place and acknowledge the cultural sensitivity and spiritual attributes of Mauna Kea. • TMT project staff will work with OMKM and ‘Imiloa to develop exhibits regarding natural resources. • The TMT project’s outreach staff will work with ‘Imiloa and 	<p>Unsupported/Unsubstantiated. These mitigation measures lessen the otherwise potential adverse impacts of the TMT Project.</p>

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		OMIKM to develop exhibits for the Visitor Information Station (VIS) and ‘Imiloa regarding the cultural and archaeological resources of Mauna Kea and support/fund programs specific to Hawaiian culture.	
783	110	• TMT project daytime activities will be minimized on up to four days per year identified by Kahu Kū Mauna.	Not credible. Dr. Meyer has no experience or expertise in planning or land use, and the use of mitigation measures. Her testimony is also not credible, especially as purported expert, given her clear and demonstrated personal bias and admitted lack of familiarity with the relevant documents. See UH-TIO FOF ¶1233, 949-950.
		Based on her knowledge and expertise, Dr. Meyer affirmed that the proposed mitigation that the “TMT project facilities will be furnished with items to provide a sense of place and acknowledge the cultural sensitivity and spiritual attributes of Mauna Kea” is <i>not</i> a sufficient mitigation. Tr. 04/01/17 vol. 31 at 139.	See response to proposed finding of fact 783 above.
784	110	Dr. Meyer testified that the TMT project will adversely impact traditional cultural practices as well as cultural and spiritual views of the mauna. Tr. 04/01/17 vol. 31 at 70.	Not credible. See response to proposed finding of fact 766 above. Her lack of credibility is demonstrated by her claim that the TMT Project seeks to ‘limit[] cultural practices on Mauna Kea to four (4) days out of 365 days.’ There is absolutely no evidence that the TMT Project seeks such a limitation. Rather, upon the suggestion of SHPD, the TMT Project agreed to minimize its daytime activities up to four days per year in observance of native Hawaiian cultural practices. See UH-TIO FOF ¶1687.
785	110-111	Dr. Kahakalau testified that, while these proposed measures to appease the Hawaiian community have been cited by some Hawaiians as primary reasons they are supporting the construction of TMT, the proposed measures clearly lack a commitment to Hawaiian values. In fact, they are an insult to Hawaiian practitioners and educators like myself on many levels. For example, any educator knows that any training conducted once a year is not nearly enough for any employee, contractor and subcontractor to gain an understanding and respect for any cultural and religious practices, and/or a sensitivity to the negative impacts on cultural resources. Moreover, limiting cultural practices on Mauna Kea to four (4) days out of 365 days, chosen by some agency, is a violation of the American Indian Religious Freedom Act, which	"protects and preserves the inherent right of freedom of belief, expression, and exercise of traditional religions..including but not

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		Limited to access to sites, use and possession or sacred objects, and the freedom to worship through ceremonies and traditional rites." Ex. B.06a at 5.	
786	111	Finally, creating educational materials and opportunities like "cultural tours" emphasizing "objective" content and experience, detached from community and violating traditional values, actually amplifies the current crisis of American education, by continuing the practice of conditioning students to exist as marginal participants and perpetual observers. It also assists in the further alienation of modern man from his own being and the natural world. Ex. B.06a at 5.	See response to proposed finding of fact 785 above.
787	111	It is common knowledge that the life of the proposed \$1.4 billion TMT observatory is more than 50 years and its life would extend considerably beyond 2033 when the GL No. S-4191 expires. Ex. B.02a at 10-11.	The TMT Observatory was designed for a useful life of 50 years. Tr. 1/3/17 at 42:22-43:1.
788	111	According to the proposed project schedule in the CDUA construction would take seven years or longer. R-1 at 1-18 to 1-19.	Not in dispute.
789	111	If construction were to resume within two years from the conclusion of this contested case hearing and potential legal appeals, the observatory might be operational around 2025, leaving only 6 years or less of service before the termination of the lease and decommissioning. Ex. B.02a at 10-11.	Irrelevant/Inapplicable.
790	111	Based upon the Decommissioning Plan for the Mauna Kea Observatories – a subplan of the CMP, the TMT observatory would have to be decommissioned, including removal and site restoration, before the expiration of the existing general lease. Ex. B.43 at 31.	Not in dispute to the extent the document speaks for itself.
791	111	UH, Lessee of the MKSR, submitted a request at the BLNR Nov. 8, 2013 meeting (Agenda Item D-5) for an issuance of new direct 65-year general leases. Ex. B.02a at 10-11.	Irrelevant/Inapplicable.
792	111	This action was deferred at the BLNR Dec. 13, 2013 meeting	Irrelevant/Inapplicable.

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		(Agenda Item D-15) upon the request of UH in order to prepare and complete an Environmental Impact Statement (EIS) as required by HRS Chapter 343 and HAR Chapter 200 of Title 11 for proposed new longterm general leases for the MKSR and related facilities and easements to replace its existing leases. Ex. B.02a at 10-11.	
793	112	Based upon the EIS Preparation Notice (EISPN), submitted Dec. 23, 2014, to the State Office of Environmental Quality Control regarding issuance of new general leases, it discusses three alternatives. These three alternatives and potentially additional alternatives advanced by stakeholders during the EISPN review period are still yet to be fully evaluated in this environmental assessment process. Alternative 1 is a “No Action Alternative”, under which the existing MKSR GL No. S-4191, would run its course and UH and its sublessees would terminate their uses no later than the end of 2033.4 Ex. B.02k at 2-2, EISPN.	Irrelevant/Inapplicable.
794	112	Should the “No Action Alternative” be selected, no new telescopes (including the TMT) should be built and all of the existing facilities would eventually be decommissioned and the land would be returned to DLNR. Ex. B.02k at 2-5, EISPN.	Unsupported/Unsubstantiated. The Flores-Case Ohana does not cite to any authority or evidence to support this proposed finding of fact other than the biased testimony of Mr. Flores.
795	112	According to Robert McLaren, Associate Director of the University of Hawaii Institute for Astronomy, if it were known today that there would be no extension of the lease beyond 2033, he's virtually certain that the TMT would not decide to proceed. Tr.11/2/16 Vol 7:161, 202.	Misleading. Presented out of context. Dr. McLaren testified that this was his opinion, but that others may have a different opinion. See Tr. 11/2/16 at 202:6-18. This proposed finding of fact is also Immaterial/Inapplicable. Dr. McLaren is not a representative of TIO.
796	112	Mr. McLaren affirmed that it would beneficial to the partners of TIO of the proposed \$1.4 billion project to have the matter pertaining to the new general lease determined before TIO starts construction. Tr. Tr.11/2/16 Vol 7: 202:20-24	Misrepresentation. Dr. McLaren testified that if it was “feasible[,]” then it would be beneficial for TIP to have the matter pertaining to the new general lease determine before TIO starts construction. This proposed finding of fact is

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CONCLUSIONS OF LAW			also Immaterial/Inapplicable.
1	113	The Board of Land and Natural Resources (“BLNR”) has jurisdiction over UHH’s Conservation District Use Application (“CDUA”) HA-3568 designated upon public lands in the Conservation District on Mauna Kea.	More accurately stated in UH-TIO COL ¶¶7-12.
2	113	BLNR has the authority and jurisdiction to NOT approve CDUA HA-3568 if it is determined that the application is deficient, incomplete, and inaccurate and/or if the Applicant is not in compliance with the mandated management plans associated with the UH Management Area of Mauna Kea.	More accurately stated in UH-TIO COL ¶¶7-12.
3	113	UHH, the Applicant of CDUA HA-3568, has standing as a party to appear in this contested case.	Not in dispute.
4	113	Petitioners Mauna Kea Anaina Hou, Clarence Kukauakahi Ching, Paul K. Neves, Deborah J. Ward, the Flores-Case ‘Ohana, and KAHEA: The Hawaiian Environmental Alliance, who established standing and were admitted as parties in the first contested case hearing, maintains their standing to appear in this second contested case hearing as parties and are properly before the BLNR.	Not in dispute.
5	113	The BLNR, as a state entity, must comply with all federal and state laws and regulations, including the State of Hawaii Sunshine Laws, HRS Chapter 92 as well as DLNR’s own Rules of Practice and Procedure. Under HRS § 92-3 and HAR § 13-1-5, BLNR is required to hold open public meetings when conducting official business. Plainly, BLNR is a public body subject to public accountability.	Regarding the first sentence, it is unclear what federal laws the Flores-Case Ohana is referring to. For example, because this was not a federal undertaking, the TMT Project was not required to conduct a NHPA Section 106 review. See UH-TIO COL ¶¶14-216. The second sentence is overly broad insofar as there are exceptions to the Sunshine Law, including, but not limited to, the exercise of adjudicatory functions. See HRs § 92-6(a)(2).

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6	113-114	<p>HRS § 92-1: Declaration of policy and intent, articulates the reason why an open governmental process is one of the foundational aspects of democracy.</p> <p>In a democracy, the people are vested with the ultimate decision-making power. Governmental agencies exist to aid the people in the formation and conduct of public policy. Opening up the governmental processes to public scrutiny and participation is the only viable and reasonable method of protecting the public's interest. Therefore, the legislature declares that it is the policy of this State that the formation and conduct of public policy - the discussions, deliberations, decisions, and action of governmental agencies - shall be conducted as openly as possible. To implement this policy the legislature declares that:</p> <ol style="list-style-type: none"> (1) It is the intent of this part to protect the people's right to know; (2) The provisions requiring open meetings shall be liberally construed; and (3) The provisions providing for exceptions to the open meeting requirements shall be strictly construed against closed meetings. <p>HRS § 92-1.</p>	<p>Misleading. Presented out of context. Though this is an accurate statement of the particular statute or rule, BLNR's adjudicatory functions in connection with this CCH are exempt from the State's Sunshine Laws. See HRS § 92-6(a)(2).</p>	
7	114		<p>HRS § 92-3: Open meetings, stipulates the rules that the BLNR's are subject to as it pertains to open meetings.</p> <p>Every meeting of all boards shall be open to the public and all persons shall be permitted to attend any meeting unless otherwise provided in the constitution or as closed pursuant to sections 92-4 and 92-5; . . . The boards shall afford all interested persons an opportunity to submit data, views, or arguments, in writing, on any agenda item. The boards shall also afford all interested persons an</p>	<p>See response to proposed conclusion of law 6 above.</p>

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8	114	<p>opportunity to present oral testimony on any agenda item. HRS § 92-3.</p> <p>HAR § 13-1-5: Meetings, also stipulates the rules that the BLNR's are subject to as it pertains to open meetings.</p> <p>(d) All meetings of the board shall be open to the public; provided, that the board may meet, pursuant to sections 92-4 and 92-5, HRS, in executive session, from which the public may be excluded, by a recorded vote of two-thirds of the members present. No order, ruling, contract, appointment, or decision shall be finally acted upon in the executive session.</p> <p>HAR §13-1-5.</p>	<p><u>See response to proposed conclusion of law 6 above.</u></p>
9	114	<p>The BLNR has executed Board actions from the onset and throughout the duration of this contested case hearing and has issued minute orders to this effect without including any of these action items on any of the Board's agendas or meetings.</p>	<p>BLNR's adjudicatory functions in connection with this CCH are exempt from the State's Sunshine Laws, HRS Chapter 92. See HRS § 92-6(a)(2).</p> <p><u>See response to proposed conclusion of law 9 above.</u></p>
10	114	<p>Minute Order Nos. 2, 4, 9, 14, 17, 36, 49, 51, and 52 were executed and approved by the Board outside the purview of the general public. These minute orders were approved and signed by Board members outside of a public regular or special meeting. As such, there are no records, BLNR agendas or meeting minutes to substantiate that these Board actions were properly and legally executed, resulting in violation of HRS § 92-7. Most significantly, these Board actions were done without public scrutiny and participation, resulting in violations of HRS § 92-3 and HAR § 13-1-5.</p>	<p><u>See response to proposed conclusion of law 9 above.</u></p>
11	114	<p>The only record that the Board has been meeting outside of their regular meetings to take actions of those matters pertaining to this cch is evidenced in the minute orders themselves.</p>	<p><u>See response to proposed conclusion of law 9 above.</u></p>
12	114	<p>As stated in Minute Order No. 2, "The Board of Land and Natural</p>	<p>Not in dispute.</p>

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		Resources met on February 26,2016, as part of and to discharge its adjudicatory function governed by Haw. Rev. Stat. § 91-9."	
13	115	As stated in Minute Order No. 4, "The Board met on April 22, 2016, and on May 4, 2016, to deliberate in order to carry out its adjudicatory functions under HRS § 91-9."	Not in dispute.
14	115	As noted, this is a continuous pattern of the BLNR conducting governmental business in a manner that is in violations of state laws. Thus, these violations should be reviewed collectively as to why these actions of the BLNR should be voided.	<u>See response to proposed conclusion of law 9 above.</u>
15	115	The law addressing conflicts of interest that would disqualify a judge from hearing a case, HRS § 601-7, states in relevant part:	Not in dispute.
		No person shall sit as a judge in any case in which the judge's relative by affinity or consanguinity within the third degree is counsel, or interested either as a plaintiff or defendant, or in the issue of which the judge has, either directly or through such relative, any pecuniary interest; nor shall any person sit as a judge in any case in which the judge has been of counselor on an appeal from any decision or judgment rendered by the judge.	
16	115	The Conservation District rules state that "[t]he applicant shall have the burden of demonstrating that a proposed land use is consistent with" the criteria set forth in HAR § 13-5-30(c).	Not in dispute.
17	115	As the party proposing a land use in the Conservation District, UH/UHH is clearly the "applicant" in this matter. Therefore, the burden of proof rests decisively upon the Applicant to prove that it meets the requirements for the granting of the CDUA. The degree of proof is a preponderance of the evidence. HAR § 13-5-30(c); HRS § 91-10(5).	Not in dispute.
18	115	The quantum of proof in this contested case proceeding is preponderance of the evidence. HAR § 13-5-30(c); HRS § 91-10(5)	Not in dispute.

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19	115-116	<p><u>Preamble</u> of the Hawai‘i State Constitution states:</p> <p>We, the people of Hawaii, grateful for Divine Guidance, and mindful of our Hawaiian heritage and uniqueness as an island State, dedicate our efforts to fulfill the philosophy decreed by the Hawaii State motto, "Ua mau ke ea o ka aina i ka pono."</p> <p>We reserve the right to control our destiny, to nurture the integrity of our people and culture, and to preserve the quality of life that we desire. We reaffirm our belief in a government of the people, by the people and for the people, and with an understanding and compassionate heart toward all the peoples of the earth, do hereby ordain and establish this constitution for the State of Hawaii.</p>	<p>The applicable law to this CDUA is more accurately and clearly stated in the UH-TIO FOF/COL.</p>
20	116	<p>Article I, Section 4, of the Hawai‘i State Constitution states:</p> <p>No law shall be enacted respecting an establishment of religion, or prohibiting the free exercise thereof, or abridging the freedom of speech or of the press or the right of the people peaceably to assemble and to petition the government for a redress of grievances.</p>	<p>The applicable law to this CDUA is more accurately and clearly stated in the UH-TIO FOF/COL.</p>
21	116	<p>Article I, Section 5, of the Hawai‘i State Constitution states:</p> <p>No person shall be deprived of life, liberty or property without due process of law, nor be denied the equal protection of the laws, nor be denied the enjoyment of the person's civil rights or be discriminated against in the exercise thereof because of race, religion, sex or ancestry.</p>	<p>The applicable law to this CDUA is more accurately and clearly stated in the UH-TIO FOF/COL.</p>
22	116	<p>Article XI, Section 1, of the Hawai‘i State Constitution states:</p>	<p>The applicable law to this CDUA is more accurately and clearly stated in the UH-TIO FOF/COL.</p>

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		For the benefit of present and future generations, the State and its political subdivisions shall conserve and protect Hawaii's natural beauty and all natural resources, including land, water, air, minerals and energy sources, and shall promote the development and utilization of these resources in a manner consistent with their conservation and in furtherance of the self-sufficiency of the State. All public natural resources are held in trust by the State for the benefit of the people.	FOF/COL. UHH and TIO dispute that the Public Trust Doctrine applies to the TMT Project. See UH-TIO FOF ¶ 1001-1014; UH-TIO COL ¶ 295-323	
23	116	<p><u>Article XI, Section 7</u>, of the Hawaii State Constitution states:</p> <p>The State has an obligation to protect, control and regulate the use of Hawaii's water resources for the benefit of its people.</p> <p>The legislature shall provide for a water resources agency which, as provided by law, shall set overall water conservation, quality and use policies; define beneficial and reasonable uses; protect ground and surface water resources, watersheds and natural stream environments; establish criteria for water use priorities while assuring appurtenant rights and existing correlative and riparian uses and establish procedures for regulating all uses of Hawaii's water resources.</p>	<p>The applicable law to this CDUA is more accurately and clearly stated in the UH-TIO FOF/COL. No credible evidence was presented to show that the TMT Project will impact any of the hydrologic resources on Mauna Kea. See UH-TIO FOF ¶ 796-823. The Petitioners and Opposing Intervenors did not submit any credible evidence to rebut Tom Nance's expert opinions. Mr. Nance has substantial education and experience in the field of hydrology and water resources. Reliable, probative, substantial, and credible evidence supports Nance's scientific opinions. See <u>id.</u></p>	<p>The applicable law to this CDUA is more accurately and clearly stated in the UH-TIO FOF/COL.</p>
24	116	<p><u>Article XI, Section 9</u>, of the Hawaii State Constitution states:</p> <p>Each person has the right to a clean and healthful environment, as defined by laws relating to environmental quality, including control of pollution and conservation, protection and enhancement of natural resources. Any person may enforce this right against any party, public or private, through appropriate legal proceedings, subject to reasonable limitations and regulation as provided by law.</p>		
25	117	<p><u>Article XII, Section 4</u>, of the Hawaii State Constitution states:</p>		<p>The applicable law to this CDUA is more accurately and clearly stated in the UH-TIO</p>

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		<p>The lands granted to the State of Hawaii by Section 5(b) of the Admission Act and pursuant to Article XVI, Section 7, of the State Constitution, excluding therefrom lands defined as "available lands" by Section 203 of the Hawaiian Homes Commission Act, 1920, as amended, shall be held by the State as a public trust for native Hawaiians and the general public.</p>	<p>FOF/COL.</p>
26	117	<p>Article XII, Section 7, of the Hawai'i State Constitution states: The State reaffirms and shall protect all rights, customarily and traditionally exercised for subsistence, cultural and religious purposes and possessed by ahupua'a tenants who are descendants of native Hawaiians who inhabited the Hawaiian Islands prior to 1778, subject to the right of the State to regulate such rights.</p>	<p>The applicable law to this CDUA is more accurately and clearly stated in the UH-TIO FOF/COL.</p>
	27	<p>Article XIV, of the Hawai'i State Constitution states:</p> <p>The people of Hawaii believe that public officers and employees must exhibit the highest standards of ethical conduct and that these standards come from the personal integrity of each individual in government. To keep faith with this belief, the legislature, each political subdivision and the constitutional convention shall adopt a code of ethics which shall apply to appointed and elected officers and employees of the State or the political subdivision, respectively, including members of the boards, commissions and other bodies.</p>	<p>The applicable law to this CDUA is more accurately and clearly stated in the UH-TIO FOF/COL.</p> <p>Each code of ethics shall be administered by a separate ethics commission, except the code of ethics adopted by the constitutional convention which shall be administered by the state ethics commission. The members of ethics commissions shall be prohibited from taking an active part in political management or in political campaigns. Ethics commissioners shall be selected in a manner which assures their independence and impartiality.</p>

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		<p>Each code of ethics shall include, but not be limited to, provisions on gifts, confidential information, use of position, contracts with government agencies, post-employment, financial disclosure and lobbyist registration and restriction. The financial disclosure provisions shall require all elected officers, all candidates for elective office and such appointed officers and employees as provided by law to make public financial disclosures. Other public officials having significant discretionary or fiscal powers as provided by law shall make confidential financial disclosures. All financial disclosure statements shall include, but not be limited to, sources and amounts of income, business ownership, officer and director positions, ownership of real property, debts, creditor interests in insolvent businesses and the names of persons represented before government agencies.</p>	<p>The applicable law to this CDUA is more accurately and clearly stated in the UH-TIO FOF/COL.</p>
28	118	<p>Article XVI, Section 7, of the Hawai'i State Constitution provides: Any trust provisions which the Congress shall impose, upon the admission of this State, in respect of the lands patented to the State by the United States or the proceeds and income therefrom, shall be complied with by appropriate legislation. Such legislation shall not diminish or limit the benefits of native Hawaiians under Section 4 of Article XII.</p>	<p>The applicable law to this CDUA is more accurately and clearly stated in the UH-TIO FOF/COL.</p>
29	118	<p><u>Amendment I</u> of the U.S. Constitution provides:</p> <p>Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press; or the right of the people peaceably to</p>	<p>The applicable law to this CDUA is more accurately and clearly stated in the UH-TIO FOF/COL.</p>

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		assemble, and to petition the Government for a redress of grievances.	The applicable law to this CDUA is more accurately and clearly stated in the UH-TIO FOF/COL.
30	118	In Public Access Shoreline Hawai'i County Planning Comm'n, 79 Haw. 425, 903 P.2d 1246 (1995) ("PASH"), the Hawaii Supreme Court stated:	<p>79 Haw. 425, 903 P.2d 1246 (1995) ("PASH"), the Hawaii Supreme Court stated: The State's power to regulate the exercise of customarily and traditionally exercised Hawaiian rights ... necessarily allows the State to permit development that interferes with such rights in certain circumstances. . . . Nevertheless, the State is obligated to protect the reasonable exercise of customary and traditionally exercised rights of Hawaiians to the extent feasible. PASH, 79 Haw. at 450 n.43, 903 P.2d at 1271 n.43.</p>
31	118		<p>In PASH, the Hawaii State Supreme Court interpreted Kalipi's discussion of customary rights derived from the Hawaiian usage exception in HRS § 1-1 (2009)³ and affirmed that "the reasonable exercise of ancient Hawaiian usage is entitled to protection under article XII, section 7." 79 Hawai'i at 442, 903 P.2d at 1263. Further, the court declared that the regulatory power reserved for the State in Article XII, Section 7 does not equate to the authority to extinguish traditional and customary Hawaiian rights because they have become "inconsistent with generally understood elements of the western doctrine of 'property.'" Concurring Opinion <i>Mauna Kea Anaina Hou et al. v. BLNR et al.</i> (2015)</p>
32	118		In <i>Ka Pa'akai o Ka 'Aina v. Land Use Comm'n</i> , 94 Hawai'i 31, 7 P.3d 1068 (2000) ("Ka Pa'akai"), the Hawaii Supreme Court held that to fulfill its duty to preserve and protect customary and traditional native Hawaiian rights to the extent feasible, an agency

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33	119	<p>must examine, and make specific findings and conclusions as to protecting Native Hawaiian traditional and customary rights.</p> <p>In the <i>Ka Pa'akai</i> decision, the Hawaii Supreme Court articulated an analytical framework for the State's obligation to protect Native Hawaiian traditional and customary rights. The court ruled:</p> <ul style="list-style-type: none"> (1) the state and its agencies are obligated to protect the reasonable exercise of customarily and traditionally exercised rights of Native Hawaiians to the extent feasible; (2) agencies are obligated to make an assessment, independent of the developer or applicant of impacts on customary and traditional practices of Native Hawaiians; and, (3) the independent assessment must include the three factors (A, B, and C) listed below, otherwise known as the "Ka Pa'akai framework." <p>A) the identity and scope if "valued cultural, historical, or natural resources" in the petition area, including the extent to which traditional and customary native Hawaiian rights are exercised in the petition area;</p> <p>B) the extent to which those resources-including traditional and customary native Hawaiian rights-will be affected or impaired by the proposed action; and</p> <p>C) the feasible action, if any, to be taken by the LUC to reasonably protect native Hawaiian rights if they are found to exist.</p>	<p>The applicable law to this CDUA is more accurately and clearly stated in the UH-TIO FOF/COL.</p> <p><i>Ka Pa'akai</i>, 94 Hawai'i at 47,7 P.3d at 1084 (footnotes omitted).</p>
34	119	<p>When an individual of Native Hawaiian descent asserts that a traditionally exercised cultural, religious, or gathering practice in an undeveloped or not fully developed area would be curtailed by the</p>	<p>The applicable law to this CDUA is more accurately and clearly stated in the UH-TIO FOF/COL.</p>

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		<p>proposed project, the State or the applicable agency is “obligated to address” this adverse impact in its findings and conclusions pursuant to the <i>Ka Pa’akai</i> framework. <i>Ka Pa’akai</i>, 94 Hawai‘i at 46, 50, 7 P.3d at 1083, 1087. Concurring Opinion <i>Mauna Kea Anaina Hou et al. v. BLNR et al.</i> (2015) at 9. Consequently, if customary and traditional Native Hawaiian practices are to be meaningfully safeguarded, “findings on the extent of their exercise, their impairment, and the feasibility of their protection” are paramount. <i>Ka Pa’akai</i>, 94 Hawai‘i at 50, 7 P.3d at 1087. Id. At 9-10.</p>	<p>The applicable law to this CDUA is more accurately and clearly stated in the UH-TIO FOF/COL.</p>
35	119-120	<p>In <i>State v. Hanapi</i>, 89 Hawai‘i 177, 970 P.2d 485 (1998) (“<i>Hanapi</i>”), the Hawai‘i Supreme Court ruled that a person claiming constitutional protection for a right under <i>PASH</i> should demonstrate following three factors:</p>	<p>First, he or she must qualify as a “native Hawaiian” within the guidelines set out in <i>PASH</i>. ... <i>PASH</i> stated that those persons who are “descendants of native Hawaiians who inhabited the island prior to 1778,” and who assert otherwise valid customary and traditional Hawaiian rights are entitled to [constitutional] protection, regardless of their blood quantum.</p> <p>Second, once [a person claiming a <i>PASH</i> right] qualifies as a native Hawaiian, he or she must then establish that his or her claimed right is constitutionally protected as a customary or traditional native Hawaiian practice...</p> <p>Finally, a [person] claiming his or her conduct is constitutionally protected must also prove that the exercise of the right occurred on undeveloped or “less than fully developed property.”</p>

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36	120	<p><i>Hanapi</i>, 89 Hawai'i at 177, 970 P.2d at 495 (citations and emphasis omitted).</p>	<p>The applicable law to this CDUA is more accurately and clearly stated in the UH-TIO FOF/COL.</p>
37	120	<p>The meaning of Article XII, Section 7 was first examined by this court in <i>Kalipi v. Hawaiian Trust Co.</i>, 66 Haw. 1, 656 P.2d 745 (1982). Chief Justice Richardson, writing for the court, stated that “any argument for the extinguishing of traditional rights based simply upon the possible inconsistency of purported native rights with our modern system of land tenure must fail,” for the exercise of these traditional rights are protected pursuant to the express terms of the Hawai'i Constitution. <i>Id.</i> at 4, 656 P.2d at 748. The Kalipi court held that “lawful occupants of an ahupua'a may, for the purposes of practicing native Hawaiian customs and traditions, enter undeveloped lands within the ahupua'a to gather those items enumerated in the statute.” <i>Id.</i> at 7-8, 656 P.2d at 749. Concurring Opinion <i>Mauna Kea Anaina Hou et al. v. BLNR et al.</i> (2015)</p>	<p>The applicable law to this CDUA is more accurately and clearly stated in the UH-TIO FOF/COL. UHH/TIO dispute that the Public Trust Doctrine applies to the TMT Project. Nevertheless, even if it does apply, the TMT Project complies with the Public Trust Doctrine. See UH-TIO FOF ¶¶1001-1009; UH-TIO COL ¶¶295-323.</p>
38	120	<p>As outlined in <i>In re Waiāhole Combined Contested Case Hearing (Waiāhole I)</i>, 94 Hawai'i 97, 137, 9 P.3d 409, 449 (2000), the Hawai'i Supreme Court upheld the exercise of Native Hawaiian and traditional and customary rights as a public trust purpose (which has priority over private commercial uses). Therefore, the Commission on Water Resource Management ("Commission") must "ensure that it does not 'abridge or deny' traditional and customary rights of Native Hawaiians." <i>Waiāhole I</i>, 94 Hawai'i at 153, 9 P.3d at 465 (citing H.R.S. §§ 174C-63, 101(c)).</p>	<p><u>In In Re Water Use Permit Applications</u>, 94 Hawai'i 97, 9 P.3d 409 (2000) ("the Waiāhole Ditch Case"), the Hawai'i Supreme Court recognized that public trust doctrine was "a fundamental principle of constitutional law in Hawai'i." Haw. Const., Art. XI, section 1, P.133, 9 P.3d at 444.</p> <p><u>See</u> response to proposed conclusion of law 37 above.</p>

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39	120	<p>The duties imposed by the public trust doctrine in this case are not supplanted or made superfluous by HRS Chapter 183C or the regulations promulgated there under. "Mere compliance by [agencies] with their legislative authority is not sufficient to determine if their actions comport with the requirements of the public trust doctrine. The public trust doctrine at all times forms the outer boundaries of permissible government action with respect to public trust resources." <i>Id.</i> at 132, 9 P.3d at 445 (citing to <i>Kootenai Envtl. Alliance v. Panhandle Yacht Club, Inc.</i>, 105 Idaho 622, 671 P.2d 1085, 1095 (Idaho 1983)). Thus, BLNR, like the Commission on Water Resource Management in the <i>Waiahole Ditch Case</i>, has an "affirmative duty" to take the public trust into account in permitting the use of public lands located in the conservation district and "to protect the public trust uses whenever feasible."</p>	<u>See response to proposed conclusion of law 37 above.</u>
40	120	<p>There is no dispute that Mauna Kea is a "public natural resource" of the class protected under Article XI, section 1 of Hawaii's Constitution. See, <i>Waiahole Ditch Case</i> at 133, 9 P.3d at 444. Mauna Kea is part of the "ceded lands trust," lands ceded by the federal government back to the State of Hawai'i by Section 5(b) of the Admission Act and pursuant to Article XVI, Section 7, of the Hawai'i Constitution. These lands are held by the State as "a public trust for native Hawaiians and the general public." Haw. Const., Art. XII, sec. 4.</p>	<u>See response to proposed conclusion of law 37 above.</u>
41	121	<p>Mauna Kea has also been designated a National Natural Landmark because of its unique geological and biological features. It is eligible for listing in the National Register of Historic Places as a traditional cultural property. There is no doubt that it is a public natural resource of invaluable worth to the public and Native Hawaiians.</p>	<p>This is not a conclusion of law and should be disregarded on that basis. <u>See response to proposed conclusion of law 37 above.</u></p>

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42	121	Therefore, BLNR must independently uphold the Constitutional mandate that it “shall conserve and protect Hawaii’s natural beauty and all natural resources...in a manner consistent with their conservation.” Haw. Const., Art. XI, sec. 1.	<u>See response to proposed conclusion of law 37 above.</u>
43	121	Where uncertainty exists, a trustee’s duty to protect a public trust resource mitigates in favor of choosing presumptions that also protect the resource. <i>Waiahole I</i> , 94 Haw. at 154.	<u>See response to proposed conclusion of law 37 above.</u>
44	121	"[T]he public trust has never been understood to safeguard rights of exclusive use for private commercial gain." <i>Waiahole I</i> , 94 Hawaii' at 138. Therefore, a higher level of scrutiny is employed when considering or private commercial use. <i>Kauai Springs</i> , 133 Hawaii' at 172 (citing <i>Waiahole I</i> at 142).	<u>See response to proposed conclusion of law 37 above.</u>
45	121	Permit applicants bear the ultimate burden of demonstrating that their proposed use will not harm traditional and customary Native Hawaiian practices in the water law context. Thus, "simply pointing to an empty record and claiming no impact to indigenous rights will no longer suffice; permit applicants bear an affirmative burden of demonstrating that a proposed use will not impact traditional and customary Native Hawaiian rights and practices." Arguably, the burden of proof should be similarly allocated in other civil contexts including, but not necessarily limited to, applications for permission to develop land. Ex. B.02d at 19.	Inaccurate/False. In <u>State v. Hanapi</u> , 89 Hawaii' 177, 970 P.2d 485 (1998), the Hawaii Supreme Court ruled that person claiming constitutional protection for a right under <u>PASH</u> has the burden of proving the existence of such a protected right. <u>Id.</u> at 185-186, 970 P.2d at 493-94 ("[I]t is the obligation of the person claiming the exercise of a native Hawaiian right to demonstrate that the right is protected."). Consequently, the Flores-Case Ohana has the burden of establishing a protected right. Notably, the Flores-Case Ohana does not cite to any actual Hawaii appellate decision for this proposed finding of fact. Instead, the Flores-Case Ohana cites to a biased "legal primer" that, by its own language, "is not a substitute for and does not provide individualized legal

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			<p>advice.” Ex. B.02d at 1. It also acknowledges that “independent review of applicable laws is always best.” <u>Id.</u> at 2.</p> <p>The applicable law to this CDUA is more accurately and clearly stated in the UH-TIO FOF/COL.</p>
46	121-122	<p>As noted in the following cases, that burden to “demonstrate affirmatively” that the proposed TMT project would not adversely impact Native Hawaiian customary and traditional practices and rights falls clearly upon the Applicant as well as the State agency represented by BLNR and DLNR.</p>	<p>The three cases cited by the Flores-Case Ohana concern water resources and the Public Trust Doctrine. UHH/TIO dispute that the Public Trust Doctrine applies to the TMT Project. Nevertheless, even if it does apply, the TMT Project complies with the Public Trust Doctrine. See UH-TIO FOF ¶¶1001-1009; UH-TIO COL ¶¶295-323.</p> <p>In <i>In re Wai'ola o Moloka'i, Inc. (Wai'ola)</i>, 103 Hawai'i 401, 409, 83 P.3d 664, 672 (2004), the court held that the Commission failed to adequately protect natural resources traditionally and customarily gathered by Native Hawaiians—specifically, several species of fish and limu. The court also held that the permit applicant bears the burden to “demonstrate affirmatively” that the proposed project would not affect Native Hawaiians’ rights.</p> <p>In <i>In re Kukui (Moloka'i)</i>, Inc., 116 Hawai'i 481, 486, 174 P.3d 320, 325 (2007), the court held that the Commission “impermissibly shifted the burden of proving harm” to individuals claiming a right to traditionally and customarily gather crab, fish, limu, and octopus on Moloka'i. Instead, the burden of demonstrating that a proposed use will not impact traditional and customary Native Hawaiian rights and practices rests with the applicant.</p> <p>Finally, in <i>In re 'Iao Ground Water Mgmt. Area High-Level</i></p>

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		<p><i>Source Water Use Permit Applications (Na Wai Eha),</i> 128 Hawai'i 228,248-49,287 P.3d 129, 149-50 (2012), the court held that the Commission failed to analyze the effect of reduced stream flow on Native Hawaiian traditional and customary practices such as kalo cultivation and other gathering rights, and failed to assess the feasibility of protecting those practices.</p>	
47	122	<p>The Hawai'i County General Plan describes the importance of Hawai'i's natural and scenic beauty as a "valuable" and "irreplaceable" asset as part of the public trust as noted below:</p> <p>The natural beauty of Hawaii is a universally recognized characteristic and one of the most significant and valuable assets of this island. In a relatively small area exists a great range</p>	<p>The applicable law to this CDUA is more accurately and clearly stated in the UH-TIO FOF/COL.</p>

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		<p>of environments, from lush green tropical valleys to snow-capped mountains.</p> <p>Hawaii's natural beauty is both an irreplaceable asset and a part of the public trust. It is fragile and although often enhanced by man can easily be adversely affected. Measures must be taken to insure its protection, both now and in the future, for the enjoyment of Hawaii's residents and visitors. Ex. B.02s at 7-1.</p> <p>The importance of natural and scenic beauty and its true evaluation as an asset of public trust to be protected for future generations remain with the people of this island. While public planning and regulation are instrumental in achieving the goals set forth for this element, it is public awareness and interest that will maintain the natural beauty of the island of Hawaii. Ex. B.02s at 7-2.</p>	<p>The applicable law to this CDUA is more accurately and clearly stated in the UH-TIO FOF/COL.</p>
48	122	<p>HRS Chapter 205, State Land Use Law outlines the establishment and purpose of the classification of the four major land use districts in which all lands in the State shall be placed. The conservation district is the most restrictive and is defined to include:</p>	<p>areas necessary for protecting watersheds and water sources; preserving scenic and historic areas; providing park lands, wilderness, and beach reserves; conserving indigenous or endemic plants, fish and wildlife, including those which are threatened or endangered; preventing floods and soil erosion; forestry; open space areas whose existing openness, natural condition or present state of use, if retained, would enhance the present or potential value of abutting or surrounding communities, or would maintain</p>

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		or enhance the conservation of natural or scenic resources; areas of value for recreational purposes; other related activities; and other permitted uses not detrimental to a multiple use conservation concept. HRS § 205-2(e).	
49	123	<p><u>HRS Chapter 183C, Conservation District</u> outlines the administration of public lands within the conservation district and articulates this public policy:</p> <p>The legislature finds that lands within the state land use conservation district contain important natural resources essential to the preservation of the State's fragile natural ecosystems and the sustainability of the State's water supply. It is therefore, the intent of the legislature to conserve, protect, and preserve the important natural resources of the State through appropriate management and use to promote their long-term sustainability and the public health, safety and welfare.</p> <p>HRS § 183C-1.</p>	<p>The applicable law to this CDUA is more accurately and clearly stated in the UH-TIO FOF/COL.</p>
50	123	<p><u>HRS § 183C-3</u> outlines the powers and duties of BLNR and DLNR in the administration of public lands within the conservation district. Relevant parts of this statute are listed below:</p> <ul style="list-style-type: none"> (3) Adopt rules, in compliance with chapter 91 which shall have the force and effect of law; (4) Set, charge, and collect reasonable fees in an amount sufficient to defray the cost of processing applications for zoning, use, and subdivision of conservation lands; (5) Establish categories of uses or activities on conservation lands, including allowable uses or activities for which no permit shall be required; 	<p>The applicable law to this CDUA is more accurately and clearly stated in the UH-TIO FOF/COL.</p> <p>The Flores-Case Ohana only partially quotes HRS § 183C-3.</p>

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		<p>(6) Establish restrictions, requirements, and conditions consistent with the standards set forth in this chapter on the use of conservation lands; and</p> <p>(7) Establish and enforce land use regulations on conservation district lands including the collection of fines for violations of land use and terms and conditions of permits issued by the department.</p>	
51	123-124	<p>HRS § 183C-3.</p> <p><u>HRS § 183C-6</u> outlines DLNR's duties pertaining to permits and site plans for land use in the conservation district. Relevant parts of this statute are listed below:</p> <p>(a) The department shall regulate land use in the conservation district by the issuance of permits.</p> <p>(c) The department shall hold a public hearing in every case involving the proposed use of land for commercial purposes, at which hearing interested persons shall be afforded a reasonable opportunity to be heard. Public notice of the time and place of the hearing shall be given at least once statewide and in the county in which the property is located. The notice shall be given not less than twenty days prior to the date set for the hearing. The hearing shall be held in the county in which the land is located and may be delegated to an agent or representative of the board as may otherwise be provided by law and in accordance with rules adopted by the board. For the purposes of its public hearing or hearings, the department shall have the power to summon witnesses, administer oaths, and require the giving of testimony. As used in this subsection, the term "commercial purposes" shall not include the use of land for utility purposes.</p> <p>(d) The department shall regulate the construction, reconstruction, demolition, or alteration of any structure, building, or facility by the</p>	<p>The applicable law to this CDUA is more accurately and clearly stated in the UH-TIO FOF/COL.</p> <p>The Flores-Case Ohana only partially quotes HRS § 183C-3.</p> <p>The Flores-Case Ohana only partially quotes HRS § 183C-3.</p>

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		issuance of site plan approvals. HRS § 183C-6.	
52	124	HRS Chapter 205A, Coastal Zone Management addresses issues from an integrated ecosystem perspective and all lands of the State are considered to be in the coastal zone management area.	<p>The applicable law to this CDUA is more accurately and clearly stated in the UH-TIO FOF/COL.</p> <p>The Flores-Case Ohana do not provide an appropriate cite for this proposed conclusion of law.</p>
53	124	The objectives and policies of the coastal zone management program relate to recreational resources, historic resources, scenic and open space resources, coastal ecosystems, economic uses, coastal hazards, managing development, public participation, beach protection and marine resources. HRS § 205A-2.	<p>The applicable law to this CDUA is more accurately and clearly stated in the UH-TIO FOF/COL.</p>
54	124	HRS § 205A-2 outlines the objectives and policies of the coastal zone management program. Relevant parts of this statute are listed below:	<p>The applicable law to this CDUA is more accurately and clearly stated in the UH-TIO FOF/COL.</p> <p>(a) The objectives and policies in this section shall apply to all parts of this chapter.</p> <p>(b) Objectives.</p> <p>(2) Historic resources;</p> <p>(A) Protect, preserve, and, where desirable, restore those natural and mammade historic and prehistoric resources in the coastal zone management area that are significant in Hawaiian and American history and culture.</p> <p>(3) Scenic and open space resources;</p> <p>(A) Protect, preserve, and, where desirable, restore or improve the quality of coastal scenic and open space resources.</p>

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		<p>(c) Policies.</p> <p>(2) Historic resources;</p> <p>(A) Identify and analyze significant archaeological resources;</p> <p>(B) Maximize information retention through preservation of remains and artifacts or salvage operations; and</p> <p>(C) Support state goals for protection, restoration, interpretation, and display of historic resources.</p> <p>(3) Scenic and open space resources;</p> <p>(A) Identify valued scenic resources in the coastal zone management area;</p> <p>(B) Ensure that new developments are compatible with their visual environment by designing and locating such developments to minimize the alteration of natural landforms and existing public views to and along the shoreline;</p>	<p>HRS § 205A-2</p> <p>The applicable law to this CDUA is more accurately and clearly stated in the UH-TIO FOF/COL.</p>
55	124-125	<p>HRS § 205A-5 articulates that all agencies shall be in compliance with this chapter.</p> <p>(a) All agencies shall ensure that their rules comply with the objectives and policies of this chapter and any guidelines enacted by the legislature.</p> <p>(b) All agencies shall enforce the objectives and policies of this chapter and any rules adopted pursuant to this chapter.</p>	<p>HRS § 205A-5</p>
56	125	<p>HRS Chapter 226, Hawaii State Planning Act provides guidance for all state agencies to “set forth the Hawaii state plan that shall serve</p>	<p>The applicable law to this CDUA is more accurately and clearly stated in the UH-TIO</p>

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		as a guide for the future long-range development of the State; identify the goals, objectives, policies, and priorities for the State”.	FOF/COL.
57	125	<p>HRS § 226-12 outlines the Hawaii State Planning Act's objective and policies for the physical environment--scenic, natural beauty, and historic resources.</p> <p>(a) Planning for the State's physical environment shall be directed towards achievement of the objective of enhancement of Hawaii's scenic assets, natural beauty, and multicultural/historical resources.</p> <p>(b) To achieve the scenic, natural beauty, and historic resources objective, it shall be the policy of this State to:</p> <ul style="list-style-type: none"> (1) Promote the preservation and restoration of significant natural and historic resources. (2) Provide incentives to maintain and enhance historic, cultural, and scenic amenities. (3) Promote the preservation of views and vistas to enhance the visual and aesthetic enjoyment of mountains, ocean, scenic landscapes, and other natural features. (4) Protect those special areas, structures, and elements that are an integral and functional part of Hawaii's ethnic and cultural heritage. (5) Encourage the design of developments and activities that complement the natural beauty of the islands. <p>HRS § 226-12</p>	<p>The applicable law to this CDUA is more accurately and clearly stated in the UH-TIO FOF/COL.</p> <p>The applicable law to this CDUA is more accurately and clearly stated in the UH-TIO FOF/COL.</p> <p>The applicable law to this CDUA is more accurately and clearly stated in the UH-TIO FOF/COL.</p>
58	125		

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		These rules shall be construed to secure the just, speedy, and cost-effective determination of every proceeding.” HAR § 13-1-1.	
59	125	HRS § 92-2 Definitions. As used in this part: “Meeting,” means the convening of a board for which a quorum is required in order to make a decision or to deliberate toward a decision upon a matter over which the board has supervision, control, jurisdiction, or advisory power.	BLNR’s adjudicatory functions in connection with this CCH are exempt from the State’s Sunshine Laws, HRS Chapter 92. See HRS § 92-6(a)(2).
60	125-126	HRS § 92-3 Open meetings. Every meeting of all boards shall be open to the public and all persons shall be permitted to attend any meeting unless otherwise provided in the constitution or as closed pursuant to sections 92-4 and 92-5; provided that the removal of any person or persons who wilfully disrupts a meeting to prevent and compromise the conduct of the meeting shall not be prohibited. The boards shall afford all interested persons an opportunity to submit data, views, or arguments, in writing, on any agenda item. The boards shall also afford all interested persons an opportunity to present oral testimony on any agenda item. The boards may provide for reasonable administration of oral testimony by rule.	BLNR’s adjudicatory functions in connection with this CCH are exempt from the State’s Sunshine Laws, HRS Chapter 92. See HRS § 92-6(a)(2).
61	126	HAR § 13-1-8 Chairperson. (a) The chairperson shall, in addition to any other duties, have charge of the board’s official records and shall be responsible for the maintenance and custody of the files and records of the board, including transcripts of testimony and exhibits, with all papers and requests filed in proceedings, the minutes of all action taken by the board and all of its findings, determinations, reports, opinions, orders, rules, and approved forms.	The applicable law to this CDUA is more accurately and clearly stated in the UH-TIO FOF/COL.

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62	126	<p><u>HAR §13-1-9 Government records.</u> (a) All government records of the board shall be available for inspection in the office of the board, Honolulu, Hawaii, during established office hours unless public inspection of these records is prohibited by law; provided that except where the records are open under any rule of court, the attorney general may determine which records may be withheld from public inspection when the records pertain to the preparation of the prosecution or defense of any action or proceeding to which the State is or may be a party or to maintain the attorney-client and attorney work product privileges. (b) Government records printed or reproduced by the board in quantity shall be given to any person requesting the same by paying the fees established by law. Photocopies of government records shall be made and given by the chairperson to any person upon request and upon payment of the fees established by law. Certified copies of extracts from government records shall also be given by the chairperson upon payment of the fees established by law.</p>	<p>The applicable law to this CDUA is more accurately and clearly stated in the UH-TIO FOF/COL.</p>
63	126	<p>HAR Title 13, Chapter 5, Conservation District regulates “land use in the conservation district for the purpose of conserving, protecting, and preserving the important natural resources of the State through appropriate management and use to promote their longterm sustainability and the public health, safety, and welfare.” HAR § 13-5-1.</p>	<p>The applicable law to this CDUA is more accurately and clearly stated in the UH-TIO FOF/COL.</p>
64	126	<p>BLNR amended its administrative rules, Chapter 5 HAR, relating to the Conservation District on August 12, 2011. HAR § 13-5.</p>	<p>Not in dispute.</p>
65	126	<p>One of the new amendments to Chapter 5 HAR, included a new definition in HAR § 13-5-2: “Comprehensive management plan” means a comprehensive plan to manage multiple uses and activities in order to protect and conserve natural and cultural resources. HAR § 13-5-2.</p>	<p>The TMT Project satisfies the “approved management plan” condition under both the old and new administrative rules. See UH-TIO COL ¶¶143-164.</p>

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66	126	<p>According to the OCCL Staff Report, “Comprehensive management plan” was added to provide for the preparation of a comprehensive management plan. The ability of the Department to require broader plans covering larger geographic areas is provided by adding a definition of “Comprehensive Management Plan” to this chapter, e.g. Mauna Kea Comprehensive Management Plan. Ex. B.02ad at 2</p>	<p>The TMT Project satisfies the “approved management plan” condition under both the old and new administrative rules. <u>See UH-TIO COL ¶¶143-164.</u></p>
66a	126-127	<p>Amended “Management plan” to clarify that certain management plans may be specific, such as aquaculture, forestry, and agriculture projects. The ability of the Department to require broader plans covering larger geographic areas is provided by adding a definition of “Comprehensive Management Plan” to this chapter – e.g., Mauna Kea Comprehensive Management Plan (see above).</p>	<p>The TMT Project satisfies the “approved management plan” condition under both the old and new administrative rules. <u>See UH-TIO COL ¶¶143-164.</u></p>
67	127	<p>HAR § 13-5-39 Management plan approvals, was significantly revised and amended to state:</p> <p>(a) Where required, management plans shall be submitted with the board permit application and shall include the requirements listed in Exhibit 3, entitled "Management Plan Requirements: August 12, 2011", which is located at the end of this chapter and made a part of this section.</p> <p>(b) The department or board may require the preparation of a comprehensive management plan where it finds that further development may lead to significant natural, cultural, or ecological impacts within the conservation district. The geographic area, specific resources to be protected and conserved, and other content of a comprehensive management plan shall be determined by the department or board.</p> <p>(c) An annual report to the department is required which shall include the status of compliance of the permit conditions and the implementation of land uses pursuant to the approved management</p>	

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		plan schedule.	
68	127	Astronomy facilities in the Resource subzone require a Board permit and an approved management plan. Haw. Admin. R. § 13-5-24. Under the recently amended version of Section 13-5-24, a management plan "approved simultaneously with the permit" is required.	The TMT Project satisfies the "approved management plan" condition under both the old and new administrative rules. See UH-TIO COL ¶¶143-164.
69	127	HAR § 13-5-2 defines natural resources as "resources such as plants, aquatic life and wildlife, cultural, historic, recreational, geologic, and archeological sites, scenic areas, ecologically significant areas, watersheds, and minerals."	The applicable law to this CDUA is more accurately and clearly stated in the UH-TIO FOF/COL.
70	127	HAR § 13-5-30 Permits, stipulates that "Land uses requiring comprehensive review by the board are processed as board permits, management plans, or comprehensive management plans, and temporary variances. Departmental permits and emergency permits are processed by the department and approved by the chairperson. Site plans are processed by the department and approved by the chairperson or a designated representative. If there is any question regarding the type of permit required for a land use, an applicant may write to the department to seek a determination on the type of permit needed for a particular action." HAR § 13-5-30.	The applicable law to this CDUA is more accurately and clearly stated in the UH-TIO FOF/COL.
71	127-128	HAR § 13-5-30(c) stipulates that when evaluating the merits of a proposed land use, the department or board shall apply the following eight criteria:	The applicable law to this CDUA is more accurately and clearly stated in the UH-TIO FOF/COL.
		(1) The proposed land use is consistent with the purpose of the conservation district;	
		(2) The proposed land use is consistent with the objectives of the subzone of the land on which the use will occur;	

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		<p>(3) The proposed land use complies with provisions and guidelines contained in chapter 205A, HRS, entitled "Coastal Zone Management", where applicable;</p> <p>(4) The proposed land use will not cause substantial adverse impact to existing natural resources within the surrounding area, community, or region;</p> <p>(5) The proposed land use, including buildings, structures, and facilities, shall be compatible with the locality and surrounding areas, appropriate to the physical conditions and capabilities of the specific parcel or parcels;</p> <p>(6) The existing physical and environmental aspects of the land, such as natural beauty and open space characteristics, will be preserved or improved upon, whichever is applicable;</p> <p>(7) Subdivision of land will not be utilized to increase the intensity of land uses in the conservation district; and</p> <p>(8) The proposed land use will not be materially detrimental to the public health, safety, and welfare.</p>
72	128	<p>Because it has accepted the burden of proof in this proceeding with respect to the criteria set forth in Haw. Admin. R. § 13-5-30(c), the burden is on UHH to prove that it meets the requirements for the granting of CDUP HA-3568. UHH must prove that it satisfies those requirements by a preponderance of the evidence. Haw. Admin. R. § 13-5-30(b); Haw. Rev. Stat. § 91-10(5).</p>
73	128	<p><u>HAR § 13-5-24</u> identifies land uses in the resource subzone and stipulates that identified land uses beginning with letter (D) such as R-3 Astronomy Facilities require a board permit and a management</p>

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		<p>plan.</p> <p>(D-1) Astronomy facilities under a management plan approved simultaneously with the permit, is also required. HAR § 13-5-24.</p>
74	128-129	<p>HAR § 13-5-39 Management plan approvals, stipulates:</p> <p>(a) Where required, management plans shall be submitted with the board permit application and shall include the requirements listed in Exhibit 3, entitled "Management Plan Requirements: August 12, 2011", which is located at the end of this chapter and made a part of this section.</p> <p>(b) The department or board may require the preparation of a comprehensive management plan where it finds that further development may lead to significant natural, cultural, or ecological impacts within the conservation district. The geographic area, specific resources to be protected and conserved, and other content of a comprehensive management plan shall be determined by the department or board.</p> <p>(c) An annual report to the department is required which shall include the status of compliance of the permit conditions and the implementation of land uses pursuant due.</p>

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75	129	<p>Chapter 13-5, Exhibit 3 outlines Management Plan Requirements:</p> <p>August 12, 2011.</p> <p>1 General description of the proposed use (e.g., forestry, fishpond, astronomy, aquaculture, agriculture).</p> <p>2 Project location (e.g., island map, location map, site plan (drawn to scale).</p> <p>3 Natural resource assessment including descriptive information about the natural resources in the project vicinity such as biological, archaeological, cultural, geological, coastal, recreational, and scenic resources, where applicable. The presence of any threatened or endangered species shall be disclosed.</p> <p>4 Natural hazard assessment including descriptive information of erosion, flooding, slope, tsunami, and volcanic hazards, where applicable.</p> <p>5 A description of best management practices used during project construction and implementation (e.g., mitigation measures).</p> <p>6 A description of the best management practices to be used during the lifetime of the project (e.g., mitigation measures).</p> <p>7 A description of the conservation methods and applications to be used in the short term and long term (e.g., mitigation measures).</p> <p>8 Description of existing uses and facilities, if any.</p> <p>9 Description of proposed facilities and uses, including phases, if applicable.</p> <p>10 Activity schedule</p> <p>Project schedule including description of project sequencing from project construction to project completion and on-going maintenance plans, including a description and timing of natural resource monitoring and maintenance plans.</p> <p>A description of the annual reporting requirements.</p> <p>11 Any other information or data, as required by the department.</p>

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76	129	<p>HRS Chapter 343, Environmental Impact Statements articulates this public policy:</p> <p>The legislature finds that the quality of humanity's environment is critical to humanity's well being, that humanity's activities have broad and profound effects upon the interrelations of all components of the environment, and that an environmental review process will integrate the review of environmental concerns with existing planning processes of the State and counties and alert decision makers to significant environmental effects which may result from the implementation of certain actions. The legislature further finds that the process of reviewing environmental effects is desirable because environmental consciousness is enhanced, cooperation and coordination are encouraged, and public participation during the review process benefits all parties involved and society as a whole.</p> <p>It is the purpose of this chapter to establish a system of environmental review which will ensure that environmental concerns are given appropriate consideration in decision making along with economic and technical considerations.</p> <p>HRS § 343-1.</p>	<p>This CCH is about the approval of a CDUA under the eight criteria set forth in HAR § 13-5-30(c), not an EIS under HRS Chapter 343. The time to comment on and challenge the EIS has passed.</p> <p>The applicable law to this CDUA is more accurately and clearly stated in the UH-TIO FOF/COL.</p>
77	130	<p>HRS § 344-3, Environmental policy, stipulates it shall be the policy of the State, through its programs, authorities, and resources to conserve the natural resources and enhance the quality of life. Relevant parts of this statute are listed below:</p> <ul style="list-style-type: none"> (1) Conserve the natural resources, so that land, water, mineral, visual, air and other natural resources are protected by controlling pollution, by preserving or augmenting natural 	

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		<p>resources, and by safeguarding the State's unique natural environmental characteristics in a manner which will foster and promote the general welfare, create and maintain conditions under which humanity and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of the people of Hawaii.</p> <p>(2) Enhance the quality of life by:</p> <ul style="list-style-type: none"> (C) Establishing communities which provide a sense of identity, wise use of land, efficient transportation, and aesthetic and social satisfaction in harmony with the natural environment which is uniquely Hawaiian; and (D) Establishing a commitment on the part of each person to protect and enhance Hawaii's environment and reduce the drain on nonrenewable resources. <p>HRS § 344-3.</p>	<p>The applicable law to this CDUA is more accurately and clearly stated in the UH-TIO FOF/COL.</p>
78	130-131	<p>HRS § 344-4 outlines guidelines for all agencies, in the development of programs, shall, insofar as practicable, consider in pursuance of the state policy to conserve the natural resources and enhance the quality of life. Relevant parts of this statute are listed below:</p> <p>(2) Land, water, mineral, visual, air, and other natural resources.</p> <ul style="list-style-type: none"> (A) Encourage management practices which conserve and fully utilize all natural resources; (D) Encourage management practices which conserve and protect watersheds and water sources, forest, and open space areas; (E) Establish and maintain natural area preserves, wildlife preserves, forest reserves, marine preserves, and unique ecological preserves; 	

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		<p>(F) Maintain an integrated system of state land use planning which coordinates the state and county general plans;</p> <p>(3) Flora and fauna.</p> <p>(A) Protect endangered species of indigenous plants and animals and introduce new plants or animals only upon assurance of negligible ecological hazard;</p> <p>(B) Foster the planting of native as well as other trees, shrubs, and flowering plants compatible to the enhancement of our environment.</p> <p>(4) Parks, recreation, and open space.</p> <p>(A) Establish, preserve and maintain scenic, historic, cultural, park and recreation areas, including the shorelines, for public recreational, educational, and scientific uses;</p> <p>(C) Promote open space in view of its natural beauty not only as a natural resource but as an ennobling, living environment for its people.</p> <p>(5) Economic development.</p> <p>(A) Encourage industries in Hawaii which would be in harmony with our environment;</p> <p>(D) Encourage all industries including the fishing, aquaculture, oceanography, recreation, and forest products industries to protect the environment;</p> <p>(10) Citizen participation.</p> <p>(A) Encourage all individuals in the State to adopt a moral ethic to respect the natural environment; to reduce waste and excessive consumption; and to fulfill the responsibility as trustees of the environment for the present and succeeding generations; and</p> <p>(B) Provide for expanding citizen participation in the decision making process so it continually embraces more</p>

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		citizens and more issues.	
79	131	<p>HRS § 344-4</p> <p><u>HRS §171-13</u> Disposition of public lands. Except as otherwise provided by law and subject to other provisions of this chapter, the board may:</p> <p>(1) Dispose of public land in fee simple, by lease, lease with option to purchase, license, or permit; and</p> <p>(2) Grant easement by direct negotiation or otherwise for particular purposes in perpetuity on such terms as may be set by the board, subject to reverter to the State upon termination or abandonment of the specific purpose for which it was granted, provided the sale price of such easement shall be determined pursuant to section 171-17(b).</p>	<p>The applicable law to this CDUA is more accurately and clearly stated in the UH-TIO FOF/COI.</p> <p>No person shall be eligible to purchase or lease public lands, or to be granted a license, permit, or easement covering public lands, who has had during the five years preceding the date of disposition a previous sale, lease, license, permit, or easement covering public lands canceled for failure to satisfy the terms and conditions thereof.</p>

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80	131-133	<p><u>HRS §171-17 Appraisals.</u> (a) The appraisal of public lands for sale or lease at public auction for the determination of the upset price may be performed by an employee of the board of land and natural resources qualified to appraise lands, or by one but not more than three disinterested appraisers whose services shall be contracted for by the board; provided that the upset price or upset rental shall be determined by disinterested appraisal whenever prudent management so dictates. No such lands shall be sold or leased for a sum less than the value fixed by appraisal; provided that for any sale or lease at public auction, the board may establish the upset sale or rental price at less than the appraisal value set by an employee of the board and the land may be sold or leased at that price. The board shall be reimbursed by the purchaser or lessee for the cost of any appraisal required to be made by a disinterested appraiser or appraisers contracted for by the board.</p> <p>(b) The sale price or lease rental of lands to be disposed of by drawing or by negotiation shall be no less than the value determined by:</p> <ul style="list-style-type: none"> (1) An employee of the board qualified to appraise lands; or (2) A disinterested appraiser or appraisers whose services shall be contracted for by the board, and the appraisal, and any further appraisal with the approval of the board, shall be at the cost of the purchaser; 	<p>The applicable law to this CDUA is more accurately and clearly stated in the UH-TIO FOF/COL.</p> <p>provided that the sale price or lease rental shall be determined by disinterested appraisal whenever prudent management so dictates; provided further that if the purchaser does not agree upon the sale price or lease rental, the purchaser may appoint an appraiser who</p>

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		<p>shall conduct an appraisal on behalf of the purchaser. If, after the purchaser's appraisal, the board and the purchaser do not agree on the sale price or lease rental, the parties shall make a good faith effort to resolve the dispute through nonbinding mediation by a single mediator, appointed by mutual agreement of the parties. The cost of mediation shall be borne equally by the parties. If mediation does not resolve the dispute, the purchaser's appraiser together with the board's appraiser shall appoint a third appraiser, and the sale price or lease rental shall be determined by arbitration as provided for in chapter 658A, which shall be final and binding. The purchaser shall pay for all appraisal costs, except that the cost of the third appraiser shall be borne equally by the purchaser and the board.</p> <p>(c) In the repurchase of any land by the board, the board shall have the option to repurchase the land for the original sale price or the fair market value at the time of repurchase, whichever is the lower. Any improvements affixed to the realty shall be purchased at their fair market value. At the time of the repurchase, the fair market value of the land, and the improvements, if any, shall be determined by a qualified appraiser whose services shall be contracted for by the board; provided that if the owner does not agree upon the value, the owner may appoint the owner's own appraiser who shall conduct an appraisal on behalf of the owner. If, after the owner's appraisal, the board and the owner do not agree on the sale price, the parties shall make a good faith effort to resolve the dispute through nonbinding mediation by a single mediator, appointed by mutual agreement of the parties. The cost of mediation shall be borne equally by the parties. If mediation does not resolve the dispute, the owner's appraiser together with the board's appraiser shall appoint a third appraiser, and the value shall be determined by</p>

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		<p>arbitration as provided in chapter 658A. The owner shall pay for all appraisal costs, except that the cost of the third appraiser shall be borne equally by the owner and the board.</p> <p>(d) If a reopening of the rental to be paid on a lease occurs, the rental for any ensuing period shall be the fair market rental at the time of reopening. At least six months prior to the time of reopening, the fair market rental shall be determined by:</p> <p>(1) An employee of the department qualified to appraise lands; or</p> <p>(2) A disinterested appraiser whose services shall be contracted for by the board;</p>	<p>and the lessee shall be promptly notified of the determination and provided with the complete appraisal prepared by the board or the board's appraiser; provided that if the lessee does not agree upon the fair market rental, the lessee may appoint the lessee's own appraiser and the lessee shall provide the board with the complete appraisal prepared by the lessee's appraiser. Each party shall pay for its own appraiser. If the board's and the lessee's appraisers do not agree upon the lease rental, the lessee and the board shall in good faith attempt to resolve the dispute by nonbinding mediation by a single mediator mutually agreed upon by the parties. If the dispute is not resolved by the mediation, the fair market rental shall be determined by arbitration as provided in chapter 658A, which shall be final and binding. Either the board or the lessee may initiate arbitration by a written demand to the other party. The arbitration shall be conducted by a single arbitrator, who shall be an attorney licensed in the State, a person with experience in contracts</p>

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		<p>and real estate valuation, or another qualified person, who shall be mutually agreed upon by the parties. If an arbitrator is not selected within fifteen days of the demand for arbitration, appointment of an arbitrator may be requested by either party by motion made to the circuit court in the circuit in which the land is located. The cost of mediation or arbitration shall be borne equally by the lessee and the board. Any language in present leases to the contrary notwithstanding, the provisions of this subsection, when possible and notwithstanding the six-month notice required, shall apply to leases with original lease rental reopening dates effective before and after July 1, 1996.</p> <p>(e) Complete appraisal reports, including all comparables relied upon in the appraisal reports, shall be available for study by the public. All complete appraisal reports shall be provided to the opposing party prior to the commencement of mediation or arbitration, if applicable, of the valuation</p>	<p>The applicable law to this CDUA is more accurately and clearly stated in the UH-TIO FOF/COI.</p>
81	133	<p>HRS §91-9 Contested cases; notice; hearing; records. (a) Subject to section 91-8.5, in any contested case, all parties shall be afforded an opportunity for hearing after reasonable notice.</p> <p>(b) The notice shall include a statement of:</p> <p>(c) Opportunities shall be afforded all parties to present evidence and argument on all issues involved.</p> <p>(d) Any procedure in a contested case may be modified or waived by stipulation of the parties and informal disposition may be made of any contested case by stipulation, agreed settlement, consent order, or default.</p>	

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		(e) For the purpose of agency decisions, the record shall include:	
82	133	HRS §91-10 Rules of evidence; official notice. In contested cases:	The applicable law to this CDUA is more accurately and clearly stated in the UH-TIO FOF/COL. This is an incomplete quotation of HRS §91-10.
83	133	HRS §91-13 Consultation by officials of agency. No official of an agency who renders a decision in a contested case shall consult any person on any issue of fact except upon notice and opportunity for all parties to participate, save to the extent required for the disposition of ex parte matters authorized by law.	The applicable law to this CDUA is more accurately and clearly stated in the UH-TIO FOF/COL.
84	134	“Mauna Kea, the highest mountain peak in the Hawaiian Islands, is of profound importance in Hawaiian culture. The summit region is sacred to Native Hawaiians, and because of its spiritual qualities, traditional and customary cultural practices are exercised throughout the summit area.” This statement regarding Mauna Kea’s cultural significance is affirmed in the Concurring Opinion from <i>Mauna Kea Anaina Hou, et al. v. Board of Land and Natural Resources, et al.</i> , 136 Hawai‘i 376 (2015).	This statement by Justice Pollack in the concurring opinion of <i>Mauna Kea Anaina Hou, et al. v. Board of Land and Natural Resources, et al.</i> , 136 Hawai‘i 376 (2015) was dicta and was not joined by any other Justices. Nonetheless, it is not disputed that Mauna Kea is culturally significant to some Native Hawaiians.
85	134	It remains undisputed that Mauna Kea is culturally significant. The sacredness and cultural significance of this mountain is reiterated in traditional Native Hawaiian accounts, testimonies of numerous witnesses, and in the Applicant’s primary documents such as the Mauna Kea CMP, 2000 Master Plan and TMT FEIS.	It is not disputed that Mauna Kea is culturally significant to some Native Hawaiians.
86	134	It remains undisputed that Native Hawaiian traditional and customary practices and rights are associated with the lands of Mauna Kea including the cultural landscape of the northern plateau in the vicinity of the proposed TMT project.	Certain practices are associated with certain parts of Mauna Kea. However, there was no evidence presented that any customary and traditional practices occur in area E, the 5 acre

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			proposed location of the TMT Observatory. See UH-TIO COL, ¶B37-338.
87	134	CDUA HA-3568 (“CDUA”) should <u>not</u> be approved because significant sections of this application are deficient, incomplete and inaccurate. All information, materials, reports, and documents inserted and referenced in this application are subject to further review and scrutiny in the cch process to determine their completeness and accuracy.	Incorrect/False as demonstrated in the UH-TIO FOF/COL. and throughout this response.
88	134	The Applicant assumes the burden and responsibility that the CDUA is complete and accurate.	UHH assumes the burden to establish that the TMT Project is consistent with the eight criteria in HAR § 13-5-30(c). The CDUA is complete and accurate. See Ex. R-1; UH-TIO FOF/COL.
89	134	Several significant deficiencies in the CDUA were brought to the attention of the Applicant during the first cch. Thus, they had several years to address these matters, make necessary revisions and corrections, and resubmit this application.	Unsupported/Unsubstantiated. The CDUA is not deficient and instead, as demonstrated in the UH-TIO FOF/COL, is consistent with the eight criteria in HAR § 13-5-30(c).
			Notably, the Flores-Case Ohana does not identify the alleged deficiencies it claims to have brought to UHH’s attention during the first CCH.
90	134	Several significant deficiencies in the CDUA were brought to the attention of the BLNR and DLNR through both written and oral testimony presented at the hearings in 2010-2011 as well as during the first cch. Thus, BLNR/DLNR should have required the Applicant to address these matters, make necessary revisions and corrections, and resubmit this application.	See response to proposed conclusion of law 89 above.
91	134	However, a decision was made to move ahead with the original application without addressing its deficiencies and without having	The Hawai‘i Supreme Court remanded this matter back to BLNR to conduct a contested

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		it come before the BLNR for a new and proper hearing since CDUP HA-3568 was vacated by the Hawai'i State Supreme Court's decision in <i>Mauna Kea Anaina Hou, et al. v. Board of Land and Natural Resources, et al.</i> .	<p><u>See response to proposed conclusion of law 89 above.</u></p>
92	134	The Applicant failed to update CDUA HA-3568 to reflect the significant change that the proposed conservation district use permit was now being requested on behalf of the Thirty Meter Telescope International Observatory, LLC (TIO) instead of the Thirty Meter Telescope Observatory Corporation (TMT Corporation).	<p><u>See response to proposed conclusion of law 89 above.</u> UHH was not required to resubmit the CDUA, reapply, or otherwise amend the CDUA to reflect the creation of TIO or the change from TMT Corporation to TIO. <u>See</u> UH-TIO COL ¶¶420-426.</p>
93	135	The significance of the change from the TMT Corporation to the TIO is that throughout the CDUA, there are numerous specific references to the TMT Observatory Corporation assuming responsibilities for the implementation of mandated management plans and other conditions.	<p>Inaccurate/False. UHH was not required to resubmit the CDUA, reapply, or otherwise amend the CDUA to reflect the creation of TIO or the change from TMT Corporation to TIO. <u>See</u> UH-TIO COL ¶¶420-426.</p>
94	135	The Applicant did not provide any evidence in the cch that the newly-formed TIO was assuming any type of responsibilities for the implementation of the mandated management plans and other conditions stipulated in CDUA HA-3568.	<p>Inaccurate/False. The TIO Sublease, Ex. B.02f, which was moved into evidence by the Flores-Case Ohana, UH-TIO FOF ¶209, clearly demonstrates that TIO is to be subject to the terms and conditions of the CDUP, if granted. <u>See id.</u> at 3, ¶4.</p> <p>There is also credible and substantial evidence that TIO has already started to perform some of the things it or TMT Corporation committed to in the CDUA. For example, TIO has already remitted approximately \$2.5 million to the</p>

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			Pauahi Foundation and Hawaii Community Foundation through the THINK Fund. See UH-TIO FOF ¶297-298. The credible and substantial evidence demonstrates that TIO has and will assume the responsibilities for the implementation of the approved management plan.
			See response to proposed conclusion of law 93 above.
95	135	It remains undisputed that TMT Corporation transitioned into TIO in May 2014 and that TIO is now the new project developer for the proposed TMT project.	The formation of TIO is more accurately stated in UH-TIO FOF ¶¶206-207.
96	135	TIO witnesses Mr. Stone and Dr. Sanders also affirmed this in their testimony.	See response to proposed conclusion of law 95 above.
97	135	TMT Observatory Corporation or any counsel on its behalf did <u>not</u> petition to intervene in this cch. Instead, counsel for TIO petitioned to intervene in this cch.	Irrelevant and not material. See response to proposed conclusion of law 95 above.
98	135	Also, TIO, not TMT Observatory Corporation, entered into a sublease with the Application for the proposed TMT project.	Not in dispute. See response to proposed conclusion of law 95 above.
99	135	There were other noted deficiencies in the CDUA that were brought to the attention of the Applicant during the first contested case hearing.	Unsupported/Unsubstantiated. The CDUA is not deficient and instead, as demonstrated in the UH-TIO FOF/COL, is consistent with the eight criteria in HAR § 13-5-30(c).
			Notably, the Flores-Case Ohana does not identify the alleged deficiencies it claims to have brought to UHH's attention during the first CCH.

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100	135	It remains undisputed that HAR Chapter 13-5 was revised and amended on August 12, 2011. It included significant changes to these rules, particularly HAR § 13-5-39 and Exhibit 3 pertaining to the Management Plan that the TMT project is mandated to complete. As a result, criteria for Exhibit 3 in the amended 2011 version is significantly different than the former version.	The TMT Project satisfies the “approved management plan” condition under both the old and new administrative rules. <u>See UH-TIO COL ¶1143-164.</u>
101	135	Analysis and data in the CDUA relied upon draft or non-existence documents.	Unsupported/Unsubstantiated. The Flores-Case Ohana provides no specific evidence to support this proposed conclusion of law.
102	135	The CDUA, Sect. 4 Cultural Resources, failed to properly assess the project impacts upon the Mauna Kea Summit Region Historic District, various historic and cultural properties, and Native Hawaiian traditional customary practices and rights.	Inaccurate/False as already demonstrated <u>supra</u> .
103	135	The CDUA omitted consultation with Native Hawaiian cultural practitioners.	Inaccurate/False. Significant and appropriate consultation regarding the TMT Project has been and continues to be conducted. <u>See e.g., UH-TIO FOF ¶1210-237.</u>
			This proposed conclusion of law is entirely specious given that Mr. Flores himself was contacted for consultation on the CIA for the TMT FEIS, but he did not respond or otherwise participate in the process. <u>See UH-TIO FOF ¶1216; Tr. 1/30/17 at 222:3-22.</u> Moreover, the Flores-Case Ohana, along with other Petitioners, have actively called for a boycott of the consultation process. <u>See UH-TIO FOF ¶236.</u>

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104	135	The CDUA, Sect. 4 Cultural Resources, included inaccurate information and manipulated Figures.	Unsupported/Unsubstantiated as already set forth <u>supra</u> .
105	135	Applicant failed to provide any creditable witness or evidence in the cch to substantiate information in Sect. 4 Cultural Resources.	Unsupported/Unsubstantiated as already set forth <u>supra</u> .
106	135	The CDUA, Sect. 7 Visual Impact, failed to properly assess the project impacts upon the view planes and open space characteristics on the northern plateau of Mauna Kea.	Unsupported/Unsubstantiated as already set forth <u>supra</u> .
107	136	The CDUA, Sect. 7 Visual Impact, failed to properly assess the project impacts upon the view planes and open space characteristics on the northern plateau of Mauna Kea.	Unsupported/Unsubstantiated as already set forth <u>supra</u> .
108	136	Applicant failed to provide any creditable witness or evidence in the cch to substantiate information in Sect. 7 Visual Impact.	Unsupported/Unsubstantiated as already set forth <u>supra</u> .
109	136	For the reasons stated above is why the Applicant was required to submit an updated, complete, and accurate CDUA for the proposed TMT project.	UHH was not required to resubmit the CDUA, reapply, or otherwise amend the CDUA to reflect the creation of TIO or the change from TMT Corporation to TIO. <u>See</u> UH-TIO COL ¶¶420-426.
110	136	The DLNR is obligated to verify and substantiate that the information in the CDUA is complete and accurate pursuant to HAR § 13-5-31 (c).	The CDUA is complete and accurate. <u>See</u> Ex. R-1; UH-TIO FOF/COL.
111	136	It appears that DLNR staff did not take a ‘hard look’ at significant aspects of this CDUA in the initial submittal. Instead, information was cut and pasted in their entirely directly from the Application’s submittals and included in their OCCL Staff Report that was submitted to Board members for their consideration.	Inaccurate/False. Unsupported/Unsubstantiated. Mr. Lemmo testified that in drafting its recommendation, OCCL consulted the CDUA, the FEIS, the CMP and subplans, and comments from members of the community and various state agencies. <u>See</u> UH-TIO FOF ¶340.
			Moreover, the Hearing Officer and therefore

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			BLNR clearly has taken and is taking a hard look at the CDUA given the 44 days of hearing testimony and the hundreds of exhibits admitted into evidence.
112	136	It has been over six years since October 10, 2010 when this application was submitted to BLNR/DLNR for review. Since that time, significant aspects pertaining to Mauna Kea have evolved and changed.	Unsupported/Unsubstantiated. The Flores-Case Ohana failed to present any evidence to support this conclusion of law.
113	136	The BLNR is also obligated to verify and substantiate that the information in the CDUA is complete and accurate.	The CDUA is complete and accurate. See Ex. R-1; UH-TIO FOF/COL.
114	136	The BLNR should have required the Applicant to update and resubmit their application to be heard at a Board meeting and required public hearing to ensure due process of law. In addition, DLNR should have revisited and updated their staff report in this matter.	UHH was not required to resubmit the CDUA, reapply, or otherwise amend the CDUA to reflect the creation of TIO or the change from TMT Corporation to TIO. See UH-TIO COL ¶¶420-426.
			The Hawai'i Supreme Court remanded this matter back to BLNR to conduct a contested case hearing. The Flores-Case Ohana has failed to cite to any authority or credible reason for its claim that a public hearing should have been conducted before the CCH.
115	136	For the same reasons stated above is why the BLNR and DLNR were required to have the Applicant submit an updated, complete, and accurate CDUA for the proposed TMT project.	See response to proposed conclusion of law 114 above.
116	136	BLNR and DLNR failed to require the CDUA HA-3568 to be in compliance with the revised HAR Chapter 13-5 (August 12, 2011).	Inaccurate/False. Unsupported/Unsubstantiated. The TMT Project, as evidenced by the CDUA and other relevant documents, is consistent with the eight criteria in HAR 13-5-30(c). See UH-TIO

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117	136	Failure of BLNR to follow HAR Chapter 1 of Title 13 and HRS Chapter 91	Unsupported/Unsubstantiated. See response to proposed conclusion of law 116 above. This is also an incomplete sentence.
118	136	The Applicant failed to follow and enforce its own mandated Design Guidelines (in particular those that pertained to <i>Facility Siting, Surfaces, Textures and Material, Colors; and Scale</i>) as set forth in the <i>2000 Master Plan</i> . As a result, the proposed TMT project is <u>not</u> able to mitigate its adverse impacts upon the natural and cultural resources.	Unsupported/Unsubstantiated. The TMT Project is consistent with the 2000 Master Plan and the eight criteria in HAR 13-5-30(c). See <u>supra</u> .
119	137	BLNR failed to require the Applicant to follow and enforce its own mandated Design Guidelines (in particular those that pertained to <i>Facility Siting, Surfaces, Textures and Material, Colors; and Scale</i>) as set forth in the 2000 Master Plan. As a result, the proposed TMT project is <u>not</u> able to mitigate its adverse impacts upon the natural and cultural resources.	See response to proposed conclusion of law 118 above.
120	137	The <i>2000 Master Plan</i> clearly states:	See response to proposed conclusion of law 118 above. Misleading. Partial quote. The Flores-Case Ohana conveniently omits the next sentence in that paragraph, which states “Determinations of consistency shall be at the sole discretion of the University of Hawai‘i.” The University has determined that the TMT Observatory is consistent with the 2000 Master Plan. See <u>e.g.</u> , UH-TIO FOF 205.
121	137	For the reasons above and those set forth in the findings of fact, the proposed TMT project is inconsistent with the UH BOR approved <i>2000 Master Plan</i> .	See response to proposed conclusion of law 118 above.
122	137	For the reasons set forth in the findings of fact, the proposed TMT project is also inconsistent with the BLNR approved CMP and subplans.	See response to proposed conclusion of law 118 above. The TMT Project is consistent with the CMP and its subplans.

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123	137	Applicant UHH has not proven by a preponderance of the evidence that it meets all the requirements and conditions for the granting of a CDUP for the proposed TMT Project.	Inaccurate/False. See UH-TIO FOF/COL.
124	137	Furthermore, the Applicant UHH has <u>not</u> by a preponderance of the evidence demonstrated that the TMT Project satisfies <u>all</u> the eight criteria 8 of HAR § 13-5-30(c).	Inaccurate/False. See UH-TIO FOF/COL.
125	137	HAR § 13-5-30(c) states that "[i]n evaluating the merits of a proposed land use, the department or board shall apply the following criteria," followed by the list of eight criteria quoted above. (emphasis added)	The TMT Project, as evidenced by the CDSA and other relevant documents, is consistent with all eight criteria in HAR 13-5-30(c). See UH-TIO FOF/COL.
126	137	In the plain language as noted with the use of " <u>and</u> " preceding criteria 8, HAR § 13-5-30(c) stipulates that a proposed land use must satisfy <u>all</u> eight criteria if applying the literal rule.	The TMT Project, as evidenced by the CDSA and other relevant documents, is consistent with all eight criteria in HAR 13-5-30(c). See UH-TIO FOF/COL.
127	137	The purpose of the Conservation District is "to conserve, protect and preserve the important natural resources of the State through appropriate management and use to promote their long-term sustainability and the public health, safety and welfare." HRS § 183C-1.	Not in dispute.
128	137	The purpose of the Conservation District rules is "to regulate land-use in the conservation district for the purpose of conserving, protecting, and preserving the important natural and cultural resources of the State through appropriate management and use to promote their long-term sustainability and the public health, safety, and welfare." HAR § 13-5-1.	Not in dispute.
129	137-138	The proposed land use is <u>not</u> consistent with the purpose of the conservation district because the TMT Project is being proposed in an extremely sensitive environmental and cultural area that is still undeveloped. The use of this undeveloped area would further contribute to the "significant, substantial, and adverse" cumulative	Incorrect/False. Unsupported/Unsubstantiated. The TMT Project, as evidenced by the CDSA and other relevant documents, is consistent with all eight criteria in HAR 13-5-30(c). See UH-TIO FOF/COL.

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		<p>impacts upon the natural and cultural resources of Mauna Kea. As a result, this project would not contribute to the protection, preservation and long-term sustainability of the surrounding areas within the conservation district.</p>	<p>Notably absent from the Flores-Case Ohana's proposed findings of fact and conclusions of law is any mention of the Hawai'i Supreme Court's recent decision in <u>Kilakila 'O Haleakalā v. Bd. of Land and Natural Resources</u>, 138 Hawai'i 383, 382 P.3d 195 (2016). See UH-TIO COL ¶¶116-121. In <u>Kilakila</u>, the Hawai'i Supreme Court, inter alia, affirmed that the BLNR, in considering the approval of a CDUA, may focus its analysis on the permitted land use within the context of a specific area within a Conservation District designated for similar uses – e.g., the Astronomy Precinct. <u>Id.</u> at 406-07, 382 P.3d at 218-19. Mr. Flores admitted on cross-examination by TIO's counsel that the Astronomy Precinct was “substantially developed.” Tr. 1/30/17 at 234:5-8. Credible and substantial evidence was also presented from others, including other Petitioners and Opposing Intervenors, during the CCH demonstrating that the Astronomy Precinct is substantially or fully developed. See e.g., UH-TIO FOF ¶¶851, 859-864. Consequently, the Flores-Case Ohana's claim that the area is currently undeveloped is meritless and contrary to recent Hawai'i Supreme Court law.</p>
130	138	Many of Chapter 205A's objectives, such as protection of historic resources, scenic and open space resources, and recreational	The TMT Project is consistent with HRS Chapter 205A. See UH-TIO COL ¶¶165-176.

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131	138	<p>resources, parallel the objectives of the Conservation District. Thus, for the same reasons that the proposed TMT Project is <u>not</u> consistent with the purpose of the Conservation District, this proposed project is also <u>not</u> consistent with the objectives of Chapter 205A.</p>	<p>The TMT Project, as evidenced by the CDUA and other relevant documents, is consistent with all eight criteria in HAR 13-5-30(c). <u>See UH-TIO FOF/COL.</u></p>
132	138	<p>For all these reasons, and for the reasons set forth in the findings of fact above, the TMT project does <u>not</u> satisfy the eight criteria requirements for issuing a CDUP under HAR § 13-5-30. The TMT is <u>not</u> consistent with the purpose of the conservation district, the resource subzone, or requirements of the CZMP. Moreover, it is an acknowledged and unmitigated source of substantial adverse impact that is not compatible with, nor improves upon the wide open space of the northern plateau. The TMT would further subdivide the conservation district for the purpose of intensifying land use. Lastly, it poses a further risk to the public's health and welfare. For these reasons, the BLNR cannot issue a permit to build the massive TMT observatory in the conservation district of Mauna Kea.</p>	<p>The TMT Project, as evidenced by the CDUA and other relevant documents, is consistent with all eight criteria in HAR 13-5-30(c). <u>See UH-TIO FOF/COL.</u></p>
133	138	<p>For all these reasons above, and for the reasons set forth in the findings of fact, the TMT Project is <u>not</u> consistent with the purpose of the Conservation District.</p>	<p>The TMT Project, as evidenced by the CDUA and other relevant documents, is consistent with all eight criteria in HAR 13-5-30(c). <u>See UH-TIO FOF/COL.</u></p>
134	138	<p>The visual impact analysis, photos renderings of the TMT dome, and information presented in the CDUA are significantly inaccurate. Likewise, the immense and enormous size of the</p>	<p>The TMT Project, as evidenced by the CDUA and other relevant documents, is consistent with all eight criteria in HAR 13-5-30(c). <u>See UH-</u></p>

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		proposed TMT observatory in the conservation district would create an adverse visual impact upon the sacred landscape of Mauna a Wākea and this would <u>not</u> preserve or improve upon the existing physical and environmental aspects of the land, such as natural beauty and open space characteristics. Also, the visual impacts of the TMT are <u>not</u> in compliance with the Hawai'i County General Plan (2005) and MKSR Master Plan (2000). It very apparent that the TMT project <u>can't</u> meet the following criteria set forth in HAR § 13-5-30(c):	TIO FOF/COL. The Flores-Case Ohana does not present any credible evidence supporting their claim that the visual impact analysis was significantly inaccurate. The biased testimony submitted by Mr. Flores is contradicted by the credible and substantial evidence in the records that an appropriate visual impact analysis was conducted.
135	138	Before BLNR approves the CDUA or any other actions within the Mauna Kea Science Reserve (MKSR), the Applicant must be in compliance with the BLNR approved management plans and conditions of the Conservation District Rules.	UHH is in compliance with the BLNR approved management plans and conditions of the Conservation District Rules. <u>See</u> UH-TIO COL ¶¶143-164.
136	138	Presently, the Applicant is <u>not</u> in compliance with the BLNR approved Mauna Kea CMP and associated subplans.	<u>See</u> response to proposed conclusion of law 135 above.
137	139	In addition, the Applicant is <u>not</u> in compliance with the UH BOR approved MKSR 2000 Master Plan.	UHH is in compliance with the 2000 Master Plan as detailed in the responses above.
138	139	BLNR/DLNR has the statutory duty and legal obligation to ensure that the Applicant is in compliance with these plans as they related to the proper management of the public lands of Mauna Kea that are part of general leases issued to UH.	<u>See</u> response to proposed conclusions of law 135 and 137 above.
139	139	In the CDUA, it explicitly states that the Mauna Kea CMP, subplans, and TMT Management Plan fulfill the requirements of the Conservation District Rules for the proposed TMT project. Thus, if the Applicant is <u>not</u> in compliance with these mandated plans, then CDUA HA-3568 is <u>not</u> capable of fulfilling the purpose of the Conservation District concerning the TMT project and the UH Management Areas.	<u>See</u> response to proposed conclusions of law 135 and 137 above.
140	139	The Applicant failed to complete the required five-year major review and revision of the CMP that was due in 2014.	<u>See</u> response to proposed conclusions of law 135 and 137 above.
141	139	The proposed TMT project was beyond the scope of this CMP at	<u>See</u> response to proposed conclusions of law 135 and 137 above.

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		the time this plan was developed.	135 and 137 above.
142	139	The Applicant failed to implement and complete several significant components of the CMP management action plans dating back to 2009 that required immediate implementation prior to approving any new CDUPs such as the proposed TMT project within a Conservation District.	<u>See</u> response to proposed conclusions of law 135 and 137 above.
143	139	The CMP identified specific management actions in order to protect the natural and cultural resources on Mauna Kea.	<u>See</u> response to proposed conclusions of law 135 and 137 above.
144	139	The OMKM of the UHH is directly responsible for implementing these actions or is required to ensure its implementation by others.	<u>See</u> response to proposed conclusions of law 135 and 137 above.
145	139	The outdated TMT Management Plan is <u>not</u> in compliance with HAR Chapter 13-5, particularly HAR § 13-5-39 and Exhibit 3 as specific requirements for HAR Chapter 13-5 were amended in 2011 subsequent to the submittal of CDDUA HA-3568.	<u>See</u> response to proposed conclusions of law 135 and 137 above.
146	139	As a result, the outdated CMP, subplans, and TMT Management Plan are <u>not</u> capable of conserving, protecting, and preserving the natural and cultural resources of Mauna Kea.	<u>See</u> response to proposed conclusions of law 135 and 137 above.
147	139	BLNR approved the mandated CMP and subplans. As such, they also have the obligation and statutory duty to require the Applicant to be in compliance with these mandated plans.	<u>See</u> response to proposed conclusions of law 135 and 137 above.
148	139	BLNR and DLNR failed to require the Applicant to be in compliance with the conditions and management actions outlined in the mandated CMP and subplans.	<u>See</u> response to proposed conclusions of law 135 and 137 above.
o	140	UH's ineffective management and unlawful actions of its own employees and individuals under their jurisdiction have resulted in adverse impacts upon Mauna Kea's natural and cultural resources as well as Native Hawaiian traditional and customary practices and rights.	The relevant inquiry under HAR 13-5-30(c)(4) is whether the TMT Project will cause substantial adverse impact to existing natural resources within the surrounding area, community, or region. The credible and substantial evidence in the record supports the finding that the TMT Project will not cause substantial adverse impact to existing natural

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			resources within the surrounding area, community, or region. See UH-TIO FOF ¶433-839; UH-TIO COL ¶177-217.
150	140	The Applicant has failed to follow the appropriate procedures for adopting implementing administrative rules for those lands and resources under their management. In the interim, staff and personnel of the OMKM have failed to follow existing rules and protocols as outlined the CMP.	<u>See response to proposed conclusion of law 149 above.</u> Mr. Ishibashi testified that there have been discussions, including a couple community meetings, concerning administrative rules regarding construction of new Hawaiian cultural features, scattering of cremated human remains, and the building of ahu or stacking of rocks. See Tr. 11/16/16 at 151-12-153:2. He testified that one of the reasons that these administrative rules have not been finalized is because many of the individuals involved in this CCH would also likely want to participate in the administrative rules process. See <u>id.</u>
151	140	It remains undisputed that individuals associated with the Applicant have desecrated and dismantled cultural sites on Mauna Kea.	Inaccurate/False. Unsubstantiated/Unsupported.
152	140	It remains undisputed that personnel directly under the supervision of the OMKM Director have desecrated and dismantled cultural sites on Mauna Kea in the vicinity of the proposed TMT site.	<u>See response to proposed conclusion of law 151 above.</u>

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153	140	It remains undisputed that personnel under the oversight of the OMKM have desecrated and bulldozed a cultural site along the access road leading to the summit of Mauna Kea.	<u>See response to proposed conclusion of law 151 above.</u>
154	140	The OMKM, who the Applicant has charged with the proper management of the UH Management Areas of Mauna Kea, has failed to adequately consult Native Hawaiian cultural practitioners. Since 2010, OMKM has failed to even compile a formal list of cultural practitioners that it should consult with on cultural matters pertaining to Mauna Kea.	Inaccurate/False. Significant and appropriate consultation regarding the TMT Project has been and continues to be conducted. <u>See e.g.,</u> UH-TIO FOF ¶¶210-237.
155	140	The OMKM has failed to properly consult with Native Hawaiian cultural practitioners to develop and implement CMP Cultural Resources policies.	This proposed conclusion of law is entirely specious given that Mr. Flores himself was contacted for consultation on the CIA for the TMT FEIS, but he did not respond or otherwise participate in the process. <u>See</u> UH-TIO FOF ¶216; Tr. 1/30/17 at 222:3-22. Moreover, the Flores-Case Ohana, along with other Petitioners, have actively called for a boycott of the consultation process. <u>See</u> UH-TIO FOF ¶236.
156	140	The OMKM has failed to properly train individuals through the Maunakea User Orientation and to properly provide oversight of UH personnel.	<u>See response to proposed conclusion of law 154 above.</u>
157	140	The collective and cumulative impacts of the proposed TMT project are <u>not</u> nominal, but instead significant, substantial, and adverse resulting in this project being inconsistent with the purpose of the Conservation District.	Inaccurate/False.
158	140	The proposed TMT project is inconsistent with <i>the 2000 Master Plan</i> concepts, objectives, and design guidelines. As such, the present plans for the TMT project would cause significant effects to	The TMT Project, as evidenced by the CDUA and other relevant documents, is consistent with all eight criteria in HAR 13-5-30(c). <u>See</u> UH-TIO FOF/COL.
			The TMT Project is consistent with the 2000 Master Plan. <u>See</u> <u>supra</u> .

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		the natural and cultural resources of Mauna Kea and thus approval of CDUA HA-3568 should be rejected.	<u>See</u> response to proposed conclusion of law 158 above.
159	141	As a result of <u>not</u> following the <i>2000 Master Plan</i> concepts, objectives, and design guidelines, the siting amongst the cultural sites, massive size, extreme height of over 18 stories, and aluminum-like dome finish of the proposed TMT observatory would cause significant effects, adverse impacts, and irreparable harm upon the presently undeveloped northern plateau.	The reliable, probative, substantial, and credible evidence demonstrates that the TMT Project will not cause substantial adverse impact to the natural and cultural resources on Mauna Kea. <u>See</u> UH-TIO FOF/COL.
160	141	The proposed TMT construction and development within the environmentally and culturally sensitive landscape would cause adverse impacts and irreparable harm upon the sacred <i>piko</i> as well as the natural and cultural resources of Mauna a Wäkea. <u>See</u> UH-TIO FOF/COL.	The reliable, probative, substantial, and credible evidence demonstrates that the TMT Project will not cause substantial adverse impact to the customary and traditional Native Hawaiian Rights. <u>See</u> UH-TIO FOF/COL.
161	141	The proposed TMT construction and development would cause adverse impacts and irreparable harm upon Native Hawaiian traditional and customary practices and rights connected to Mauna a Wäkea.	The use of mitigation measures is a universally recognized and widely adopted means of lessening otherwise adverse impacts in land use projects. Ex. C-6 (WDT Callies) at 8. The TMT Project's mitigation measures are extensively discussed in the UH-TIO FOF/COL. <u>See</u> FOF ¶¶304-330. The Flores-Case Ohana confuse mitigation measures with elimination. Mitigation measures are adopted to lessen otherwise adverse impacts, not eliminate them. The Flores-Case Ohana provide no authority to support their claim that mitigation measures must eliminate otherwise
162	141	None of the proposed mitigation measures directly address or mitigate the harm that would be caused by the TMT project or telescope development and activities.	

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163	141	Instead, some of these measures would actually provide direct financial benefits to the Applicant such as providing funds and support staff for exhibits and programs for UH's facilities at 'Imiloa and Visitor Information Station. In other words, the Applicant is going to personally benefit from the adverse impacts of this project.	<p>adverse impacts.</p> <p><u>See response to proposed conclusion of law 162 above.</u></p>
164	141	The TMT project proposes to decorate its facilities with a “sense of place and acknowledge the cultural sensitivity and spiritual attributes of Mauna Kea” – the very aspects that its construction development proposes to adversely impact.	<p><u>See response to proposed conclusion of law 162 above.</u></p>
165	141	The TMT project proposes to minimizing the TMT project’s daytime activities on up to four days per year. However, most of the telescope activities are already minimized during the day because most of their activity is night related.	<p><u>See response to proposed conclusion of law 162 above.</u></p>
166	141	Because the significant, substantial, and adverse impacts can't be mitigated to a level that is less than substantial, the BLNR <u>cannot</u> approve this CDUA without further attributing to the cumulative impacts upon the natural and cultural resources of Mauna Kea.	<p><u>See response to proposed conclusion of law 162 above.</u></p>
167	141	Prior to BLNR approving a permit for the TMT project that would extend beyond the expiration of General Lease (GL) No. S-4191 for the MKSR, UH should complete an EIS first.	<p>Unsupported/Unsubstantiated. The Flores-Case Ohana do not cite to a single authority that requires UHH to complete an EIS for the General Lease before the BLNR can approve the CDUA. The FEIS for the TMT Project is complete.</p>
168	141-142	UH, Lessee of the MKSR, submitted a request to the BLNR in 2013 for an issuance of new direct 65-year general leases for the MKSR and related facilities and easements to replace its existing leases. However, Board action was deferred in order for UH to prepare and complete an Environmental Impact Statement (EIS) as required by HRS Chapter 343 and HAR Chapter 200 of Title 11.	<p><u>See response to proposed conclusion of law 167 above.</u></p>

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169	142	Should the “No Action Alternative” be selected in this EIS, no new telescopes (including the TMT) should be built and all of the existing facilities would eventually be decommissioned and the land would be returned to DLNR. The TMT project will no longer be viable if it has to be decommissioned by 2033, only six years or less after it is proposed to become operational.	<u>See response to proposed conclusion of law 167 above.</u>
170	142	Approving CDUA HA-3568 for a project whose lifecycle extends far beyond the expiration of General Lease (GL) No. S-4191 would be a violation of due process as it would prejudice the outcome of the EIS process for a proposed new master lease as the State would be obligated to move forward with a limited scope of Alternatives.	<u>See response to proposed conclusion of law 167 above.</u>
171	142	It has been testified to the fact that the lifecycle of the proposed \$1.4 billion TMT observatory is more than 50 years and its life would extend considerably beyond 2033 when the GL No. S-4191 expires.	<u>See response to proposed conclusion of law 167 above.</u>
172	142	According to the proposed project schedule in the CDUA construction would take seven years or longer. If construction were to resume within one year from the conclusion of this contested case hearing and potential legal appeals, the observatory might be operational around 2025, leaving only six years or less of service before the termination of the lease and decommissioning.	<u>See response to proposed conclusion of law 167 above.</u>
173	142	Based upon the Decommissioning Plan for the Mauna Kea Observatories – a subplan of the CIMP, the TMT observatory would have to be decommissioned, including removal and site restoration, before the expiration of the existing general lease.	<u>See response to proposed conclusion of law 167 above.</u>
174	142	If the TMT project needed to be decommissioned by 2033 and the project was abandoned in place, the CDUA and the Applicant has failed to articulate where the funding for site restoration would be obtained from.	<u>See response to proposed conclusion of law 167 above.</u> The Decommissioning of the TMT Project is extensively discussed at UH-TIO FOF ¶331-337. Dr. Stone also testified that if the General

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			Lease ends in 2033 and decommissioning needs to occur before then, TIO members will fund the \$15.6 million to fund the decommission. Tr. 12/19/16 at 120:7-121:2.
175	142	Then BLNR/DLNR should first determine the legality and impacts of issuing any new long-term general leases for the public lands of Mauna Kea prior to approving CDUA HA-3568. Otherwise, this would be another example of putting “the cart before the horse”.	See response to proposed conclusion of law 167 above.
176	142	BLNR/DLNR, representing the State as the Lessor, has the sole legal obligation, duty, and responsibility to appropriately manage and protect the conservation and public trust lands of Mauna Kea.	Inaccurate in terms of “sole” legal obligation.
177	142	BLNR/DLNR has improperly executed their duties and responsibilities that have allowed the Applicant to <u>not</u> be in compliance with the BLNR and UH BOR approved plans for Mauna Kea.	Inaccurate/False. Unsupported/Unsubstantiated.
178	143	The failure of BLNR/DLNR to assume its appropriate role as Lessor has resulted in substantial, adverse, and significant impacts to the natural, cultural, and historic resources on Mauna Kea. This matter has been previously brought to the attention of the BLNR/DLNR for several decades by the Hawaii State Auditor, State Legislature, and members of the public.	Inaccurate/False. Unsupported/Unsubstantiated.
179	143	State agencies such as DLNR and BLNR as its executive board are responsible for protecting traditional and customary Native Hawaiian rights must conduct detailed inquiries into the impacts on those rights to ensure that proposed uses of land and water resources are pursued in a culturally appropriate way. Agencies must make these inquiries independent of the developer or applicant.	BLNR is required to protect the reasonable exercise of customary and traditional Native Hawaiian practices. Those practices are also subject to reasonable regulation.

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180	143	State agencies responsible for protecting traditional and customary Native Hawaiian rights must complete the analysis outlined in <i>Ka Pa'akai</i> to ensure that proposed uses of land and water resources are pursued in a culturally appropriate way.	<p>In order to fulfill its duty to preserve and protect customary and traditional practices to the extent feasible, BLNR must conduct a <u>Ka Pa'akai</u> analysis. This analysis can be conducted within the context of a contested case hearing. It does not need to occur prior to the contested case hearing as incorrectly argued by the Flores-Case Ohana. See UH-TIO COL ¶¶110-113.</p> <p>Here, in addition to consideration of the CDUA and all relevant documents, 44 days of hearing was taken in which numerous practitioners testified about their cultural practices on Mauna Kea. Consequently, BLNR is discharging its duty, at least partly, by having this CCH.</p>
181	143	The analytical framework introduced in <i>Ka Pa'akai</i> assists BLNR and DLNR as a State agency in balancing their legal obligations to protect traditional and customary practices against private property (as well as competing public) interests, by requiring specific findings and conclusions.	<p>The applicable law to this CDUA is more accurately and clearly stated in the UH-TIO FOF/COL. See UH-TIO COL ¶¶110-113.</p>
182	143	This means that agencies may not delegate this constitutional responsibility to others by, for example, directing the applicant to independently attempt to protect traditional and customary rights.	<p>The applicable law to this CDUA is more accurately and clearly stated in the UH-TIO FOF/COL. See UH-TIO COL ¶¶110-113.</p>
183	143	Instead, agencies must actively research and consider the cultural, historical and natural resources of a subject property as they relate to Native Hawaiian rights, when determining what restrictions should be placed on land or water use.	<p>The applicable law to this CDUA is more accurately and clearly stated in the UH-TIO FOF/COL. See UH-TIO COL ¶¶110-113.</p>

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184	143	For example, in the <i>Kukui</i> and <i>Wai'ola</i> cases the court invalidated permits issued by the State Water Commission. An agency's failure to condition permitted uses upon protection of Native Hawaiian traditional and customary practices is sufficient grounds for invalidating that agency's decision to grant the underlying permit.	This is an inaccurate statement of the law. BLNR is required to protect the reasonable exercise of customary and traditional Native Hawaiian practices to the extent feasible. <u>See UH-TIO COL ¶¶100-125; 324-354.</u>
185	143	BLNR/DLNR, failed to meet their statutory and constitutional obligations under <i>Ka Pa'akai o Ka'aina v. Land Use Commission (Ka Pa'akai)</i> 94 Hawaii 31, 7 P.3d 1068 (2000) to preserve and protect traditional and customary rights of Native Hawaiians.	Incorrect/False. <u>See response to proposed conclusion of law 180 above.</u>
186	143	Prior to approving a permit or other actions pertaining to the culturally sensitive lands of Mauna Kea, BLNR/DLNR is required to complete an assessment/analysis independent of the developer or applicant.	<u>See response to proposed conclusion of law 180 above.</u>
187	143	Witnesses or evidence was not provided by any party that could substantiate that an independent <i>Ka Pa'akai</i> analysis was ever completed by or for BLNR/DLNR.	<u>See response to proposed conclusion of law 180 above.</u>
188	144	Subpoena witness Samuel Lemmo, OCCL Administrator, disclosed that DLNR has <u>not</u> completed such a <i>Ka Pa'akai</i> analysis due lack of staff time and resources.	<u>See response to proposed conclusion of law 180 above.</u>
189	144	BLNR/DLNR is not able to delegate this constitutional responsibility to the project developer, the TMT Observatory Corporation/Thirty Meter Telescope International Observatory LLC or the Applicant, UH.	<u>See response to proposed conclusion of law 180 above.</u> BLNR is not and has not delegated its responsibility. Instead, BLNR held a 44 day hearing inquiring into the practices that are conducted on Mauna Kea.
190	144	Due to the fact BLNR/DLNR failed to identify and adequately assess customarily and traditionally exercised rights and practices of Native Hawaiians associated with the proposed TMT project on public lands <u>prior</u> to these lands being fully developed, they are not capable of protecting such rights and practices because such rights and practices are unknown to them.	<u>See response to proposed conclusion of law 180 above.</u>

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191	144	Consequently, BLNR/DLNR is obligated to complete an independent <i>Ka Pa'akai</i> analysis prior to approving CDUA HAA-3568.	See response to proposed conclusion of law 180 above.
192	144	The Applicant bears the ultimate burden of demonstrating that the proposed land use will not harm Native Hawaiian customary and traditional practices and rights.	This is an inaccurate statement of the law. BLNR is required to protect the reasonable exercise of customary and traditional Native Hawaiian practices to the extent feasible. See UH-TIO COL ¶¶100-125; 324-354. BLNR's "obligation is to protective native Hawaiian customary and traditional practices while reasonably accommodating competing private interests." <i>Ka Pa'akai o Ka 'Aina v. Land Use Comm'n</i> , 94 Hawai'i 31, 7 P.3d 1068 (2000).
193	144	Substantial and overwhelming evidence was provided throughout the contested case hearing that the proposed TMT project would cause harm upon Native Hawaiians and adversely impact their customary and traditional practices and rights.	There is no reliable probative and substantial evidence that the referenced practices are actually within the bundle of rights protected by article XII, section 7 of the Hawaii State Constitution.

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			proposed, and in many instances, not until after the first contested case hearing in this matter <u>See UH-TIO COL ¶¶324-354.</u>
			There is no reliable probative and substantial evidence that the referenced practices are actually within the bundle of rights protected by article XII, section 7 of the Hawaii State Constitution.
194	144	The Applicant failed to present any witnesses or evidence to “demonstrate affirmatively” that the proposed project would not impact such practices and rights. As noted in the following cases, that burden falls upon the Applicant as well as the State agency represented by BLNR and DLNR.	<u>See responses to proposed conclusions of law 192 and 193 above.</u>
195	144	Applicant did <u>not</u> offer reliable, probative, substantial, and credible evidence, whether from expert or lay witnesses, that would support the conclusion that the TMT Project would <u>not</u> cause substantial adverse impact to plants, aquatic life and wildlife, cultural, historic, and archaeological sites, minerals, recreational sites, geologic sites, scenic areas, ecologically significant areas, or watersheds.	Inaccurate/False. The reliable, probative, substantial, and credible evidence, specifically including, but not limited to, the testimonies of White, Hayes, Nees, Dr. Smith, Nance, Dr. Sanders, and Rechtman, and admitted relevant exhibits, demonstrates that the TMT Project will not cause substantial adverse impact to existing plants, aquatic life and wildlife, cultural, historic, and archaeological sites, minerals, recreational sites, geologic sites, scenic areas, ecologically significant areas, and watersheds. <u>See UH-TIO FOF ¶¶433-839; UH-TIO COL ¶¶177-217.</u>
196	144	The reliable, probative, substantial, and credible evidence demonstrates that the TMT Project will cause substantial adverse impacts to cultural, historical, and archaeological sites.	<u>See response to proposed conclusion of law 195 above.</u>
197	144	The Applicant did not provide any adequate mitigation measures	Inaccurate/False. The mitigation measures

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		for these impacts. Instead, the Applicant along the TMT project consultants have fabricated non-existent or inadequate measures.	proposed by the TMT Project are appropriate as already set forth throughout these responses.
198	145	Board actions in violation of HAR § 13-1-5 and HRS Chapter 92. In the same manner that the first contested case hearing (“cch”) was flawed from the onset with procedural errors and violations of due process, this second cch follows suit.	BLNR’s adjudicatory functions in connection with this CCH are exempt from the State’s Sunshine Laws, HRS Chapter 92. See HRS § 92-6(a)(2).
199	145	The BLNR excluded public scrutiny and participation and failed to protect the public’s interest by executing Board actions in violation of HAR § 13-1-5 and HRS Chapter 92 by without properly scheduling matters on their agendas, having closed meetings, and excluding the public when they issued several minute orders through the course of this contested case hearing.	BLNR’s adjudicatory functions in connection with this CCH are exempt from the State’s Sunshine Laws, HRS Chapter 92. See HRS § 92-6(a)(2).
200	145	If a BLNR vote is needed to approve a cch, then such a Board action would need to be listed as an agenda item for a regular or special meeting. However, this wasn’t done in this case. Instead, Board members met on February 26, 2016, “as part of and to discharge its adjudicatory function governed by Haw. Rev. Stat. § 91-9” outside of their regular meeting. “After full discussion of the issue, the Board delegated the conduct of the contested case hearing to a hearing officer, pursuant to HAR § 13-1-32(b), and confirmed that the chairperson was authorized to engage the services of a hearing officer pursuant to law.” Then six weeks later on or about April 8, 2016, Minute Order No. 2 was signed by Chair Suzanne D. Case, and fellow members Stanley H. Roehrig, Keith “Keone” Downing, James A. Gomes, Thomas Oi, Ulatia Woodside, and Christopher Yuen served to parties by U.S. mail on this date.	BLNR’s adjudicatory functions in connection with this CCH are exempt from the State’s Sunshine Laws, HRS Chapter 92. See HRS § 92-6(a)(2).
201	145	However, this isn’t an isolated incident as the Board systematically issued at least nine minute orders in the same manner that excluded the public. Minute Order Nos. 2, 4, 14, 36, 48, 49, 52.	BLNR’s adjudicatory functions in connection with this CCH are exempt from the State’s Sunshine Laws, HRS Chapter 92. See HRS § 92-6(a)(2).

FOF/ COL #	Page	FOF/COL	Response
202	145	<p>In addition, the BLNR has a pattern of executing actions that are comparable to “putting the cart before the horse”. Minute Order No. 1 was issued by the BLNR Chair Suzanne D. Case on March 31, 2016 giving notice that Riki May Amano was selected as the Hearing Officer. However, the Board signs and issues Minute Order No. 2 on April 8, 2016 that “confirmed that the chairperson was authorized to engage the services of a hearing officer pursuant to law.”</p>	<p>BLNR’s adjudicatory functions in connection with this CCH are exempt from the State’s Sunshine Laws, HRS Chapter 92. See HRS § 92-6(a)(2).</p>
203	145	<p>During the cch there was an undisputed case of spoliation of evidence by OCCCL Staff that effected the integrity of this administrative hearing and the Hearing Officer failed to provide any disclosure on the matter. This was referenced in the Motions filed by the Flores- Case ‘Ohana in Docs. No. 577 and 623. There’s an expectation of integrity in this process.</p>	<p>Unsupported/Unsubstantiated. The Flores-Case Ohana does not submit any proposed findings of fact to support this proposed conclusion of law.</p>
204	145	<p>Flores-Case ‘Ohana was prejudiced in these proceedings by the time frames of motions and other procedural irregularities during this hearing. In addition, the response to motions were untimely which also resulted in violations of due process.</p>	<p>Unsupported/Unsubstantiated. The Flores-Case Ohana’s claim of being deprived due process in this CCH is meritless. There was 44 days of testimony from over seventy witnesses, including testimony from at least three members of the Flores-Case Ohana. The Flores-Case Ohana was permitted to submit a significant amount of exhibits also. The time frames and deadlines applied equally to all parties. The Flores-Case Ohana was heard at a meaningful time and in a meaningful manner. There was no denial of due process in this CCH.</p>

BOARD OF LAND AND NATURAL RESOURCES

FOR THE STATE OF HAWAII

IN THE MATTER OF

A Contested Case Hearing Re Conservation District Use Permit (CDUP) HA-3568 for the Thirty Meter Telescope at the Mauna Kea Science Reserve, Kaohe Mauka, Hamakua District, Island of Hawaii, TMK (3) 4-4-015:009

Case No. BLNR-CC-16-002

CERTIFICATE OF SERVICE

CERTIFICATE OF SERVICE

The undersigned hereby certifies that the foregoing document was served upon the following parties by the means indicated:

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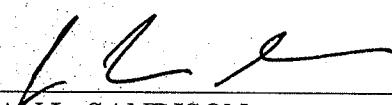
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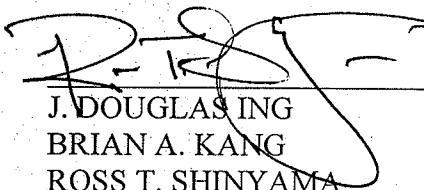
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